

MINNESOTA PLANT PRESS

VOLUME 3 NUMBER 1 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY WINTER 1984

IVERSNAID

Dogged with dew, dappled with dew
Are the groins of the braes that the brook
treads through
Wiry heathpacks, fitches of fern
And the beadbonny ash that sits over the burn.

What would the world be, once bereft
Of wet and wildness? Let them be left,
O let them be left, wildness and wet;
Long live the weeds and wildness yet.

— Gerard Manley Hopkins



Rare plants of rocky shorelines

THANK YOU

The Minnesota Native Plant Society wishes to thank Horace Chamberlain for his generous contribution for the native seed exchange. We will use the funds from Mr. Chamberlain's gift to print envelopes with the date, place, species, type of growing conditions, and name of the collector for the seed exchange. The envelopes will be available in the spring.

A bouquet of thanks to Dr. May Wright for organizing the 1984 seed exchange held on November 2!

Appreciation is also extended to all those who donated seeds, including Horace Chamberlain, Denis Hahn, Virginia Homme, Merle Kratoske, Don Lawrence, Dianne Plunkett, Jean Sehossow, Chris Soutter; and May Wright.

GERMINATION RECORDS

NEEDED

Those propagating plants from seed are encouraged to record their methods of germination. A future project of the MNPS may be to report on results of various methods of seed germination of native species.

If you are interested in contributing your experience to this project, please pick up a germination report form at the next MNPS meeting, or request one from Chris Souther, 780 Ottawa Ave., St. Paul, MN, 55107.

Minnesota Native Plant Society Membership Registration

Mail to: MNPS, 220 Biological Sciences Center, University of Minnesota, St. Paul, MN 55108

☐ New Member

☐ Renewal

Membership Categories:

\$8.00 ☐ Individual

\$10.00 ☐ Family (Two or more related individuals at same address)

\$6.00 ☐ Student (Full-time)

\$6.00 ☐ Senior (over 62 and retired)

\$15.00 ☐ Institution

\$25.00 ☐ Donor

Name Address

City State ZIP Phone

HAPPY BIRTHDAY TO MNPS

On February 3, 1982, MNPS held its first meeting with a full house and began a year filled with speakers, field trips, and overwhelming support from its new members. It was a strong confirmation of the need for a forum for information and concern for native plants of our state.

September, 1, 1983, marked the beginning of our new fiscal year and the expiration of annual memberships. Please join us for another year! MNPS is young and flexible — how can we serve you better? Give us your comments and criticisms by mail or at the monthly meeting. We need your continued interest and support! Check the back of your newsletter for your membership status. If you have not renewed — fill out the above form.

FIELD TRIP SLIDES

NEEDED!

Please bring your slides of past MNPS field trips (1982-1983) to the May 2nd meeting to give new members an idea of places we will visit in future field trips!

NOMINATIONS BEING

ACCEPTED

Four slots on the Minnesota Native Plant Society Board expired in 1984. Elections will be held at the March Board meeting for the four positions. Deb Brown, who chairs the nominating Committee, would be happy to have any nominations. Feel free to nominate yourself if you'd like to run for office. Deb's phone number is 378-2595.

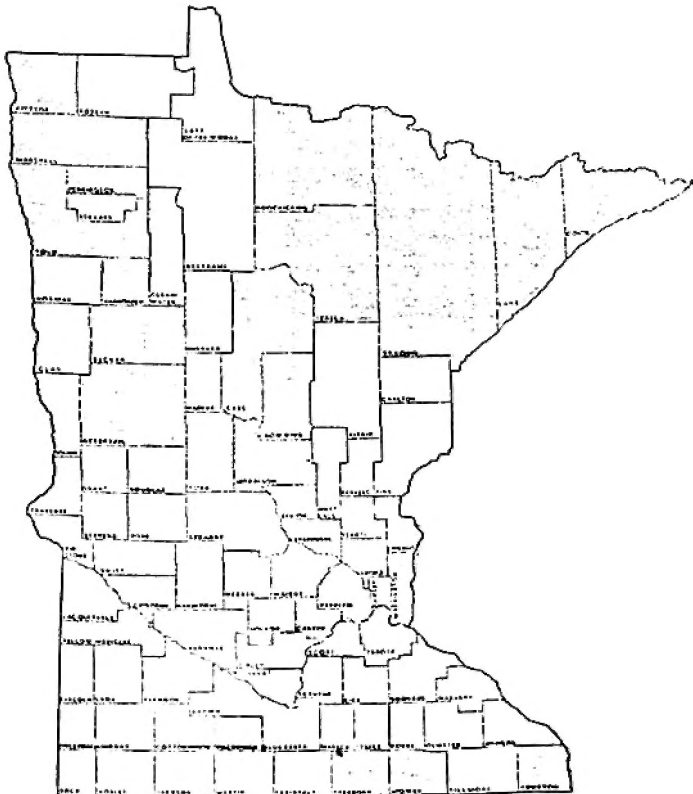
If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: Neil Anderson, P.O. Box 80052, St. Paul, MN 55108.

PURPLE LOOSESTRIFE ALERT

Waves of tall, colorful soldiers, decked in purple and green, are marching up our valleys, streams, lakes, and wetlands. Far ahead of the advancing armies, scouts infiltrate the countryside, carefully selecting suitable invasion areas. The strategy: get established, saturate the area with propagules, and wait. Eventually small patches form. When conditions are just right, a large scale offensive is launched...

The menacing invader is purple loosestrife. Like so many troublesome species, loosestrife is an exotic plant. Its targets are our native wetland and moist soil habitats. It threatens the quality of our wetlands by crowding out cattails, sedges and other native plants, many of which a vast array of wildlife depend on for their survival. Purple loosestrife is an incredibly resourceful competitor...and its here, in Minnesota.

Responding to increasing concern about the species, the Department of Natural Resources --Scientific and Natural Areas Program conducted a "quick and dirty" survey of its present distribution in the state. The results were alarming! Purple loosestrife was reported from almost half of all Minnesota counties (see map). In most

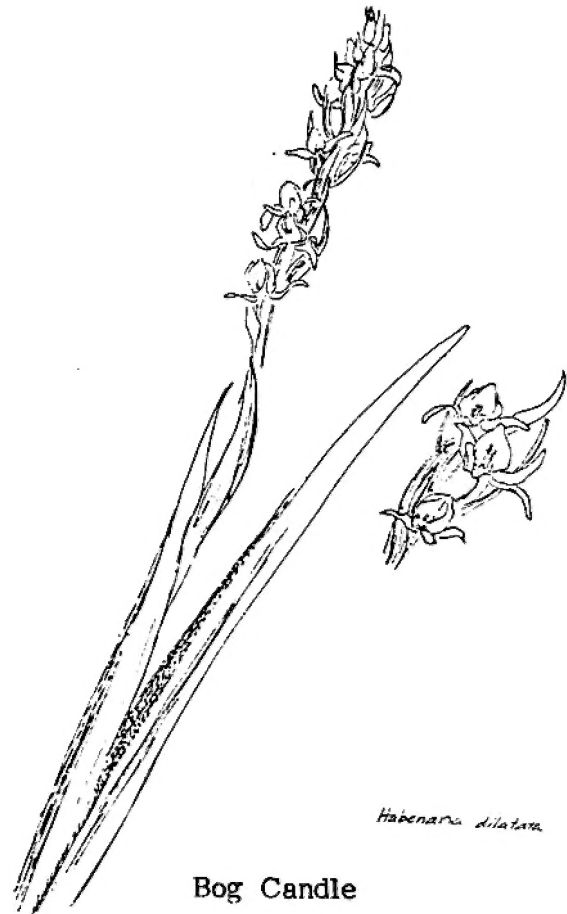


areas, it occurs primarily as a few scattered individuals or small patches in only a small number of wetlands. However, in the Metro area and along the Mississippi River Valley in the southeast, loosestrife is more common and abundant.

Attempts to control the plant in other states has had varying results. The best strategy for local eradication is to remove the plant before it is well established. Long-term, effective control will require the following three initiatives:

1. Legislation controlling the commercial and residential use of the species.
2. A state coordinated research and control program.
3. A federal coordinated research and control program.

To accomplish this, funds must be allocated and legislation passed. In the meantime, when you see purple loosestrife blooming this summer, notify the Scientific and Natural Area Program, Box 6, Centennial Building, St. Paul, Minnesota 55155, (616)-297-3288. Knowing where the plant is and how abundant it is will assist biologists in their efforts to monitor and control this nuisance plant.



Bog Candle

SPECIES STATUS SHEET

There are about 2,000 species of plants occurring wild in Minnesota. Thirty-eight of these are legally protected in Minnesota as endangered species. To be given this status, a species must be in danger of extinction in Minnesota and over a significant portion of its range. Beginning with this issue of the Plant Press, and continued in subsequent issues, status reports on selected endangered species will appear.

SCIENTIFIC NAME: Besseyia bullii (Eaton) Rydb.
(Wulfenia bullii (Eaton) Barnhart)

FAMILY: Scrophulariaceae

COMMON NAME: Kitten Tails

STATE STATUS: Endangered

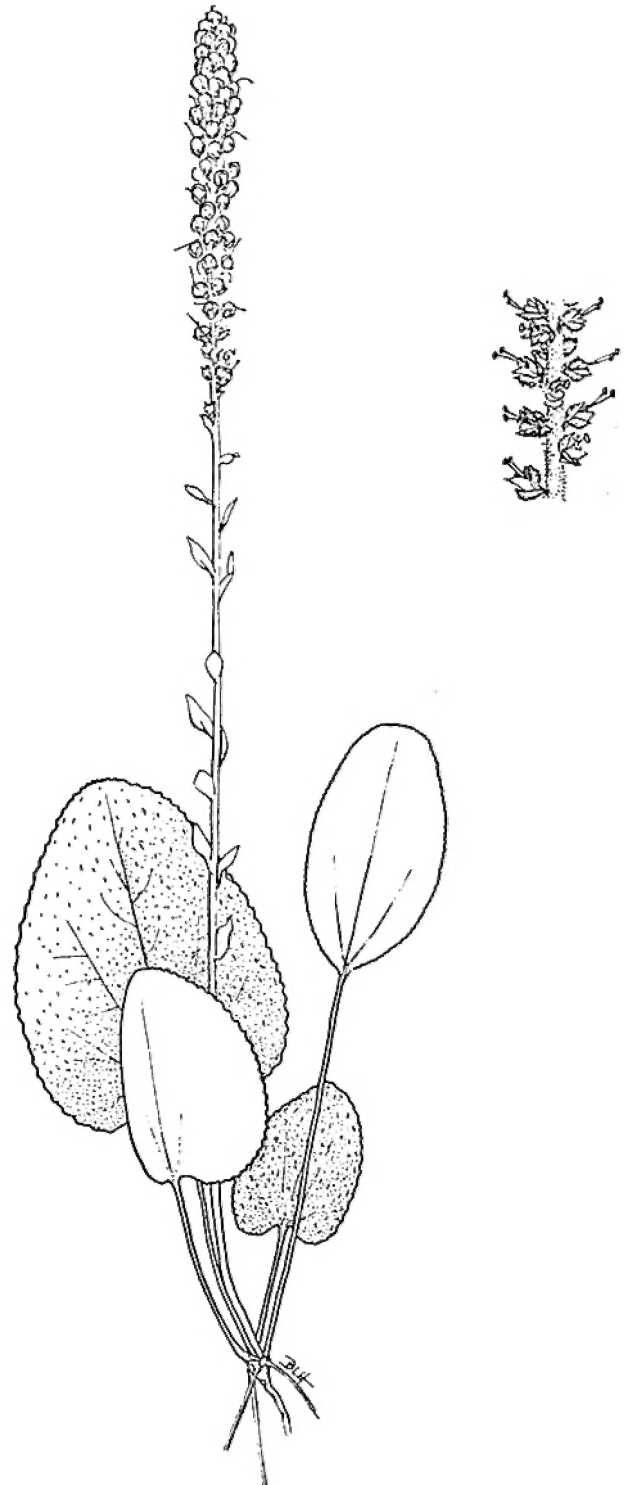
FEDERAL STATUS: Currently under review by the Department of Interior for listing as a threatened species under the Endangered Species Act of 1973 (Public Law 93-205, enacted December 28, 1973; amended 1978. Federal Register 45(242):82480, December 15, 1980).

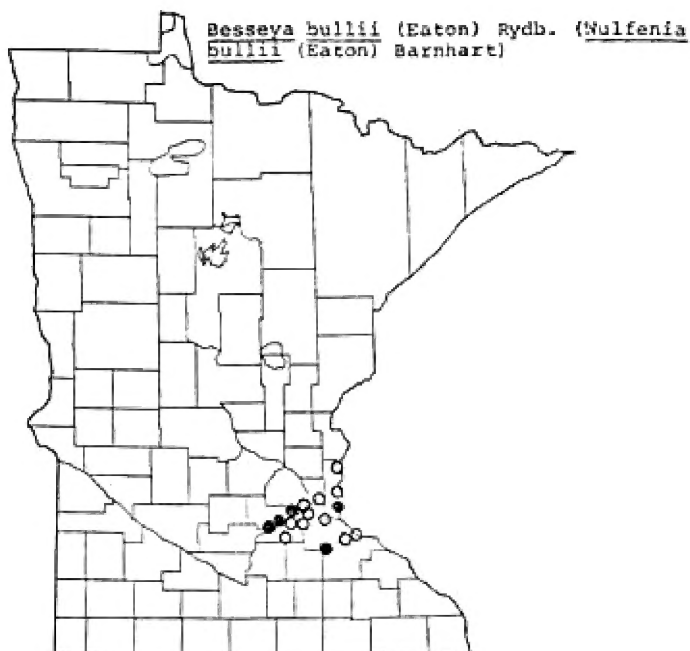
BASIS FOR MINNESOTA STATUS: More than half of the historically known populations of this species in Minnesota were located in what is now the metropolitan area of Minneapolis-St. Paul and surrounding suburbs. The majority of these populations have not been verified since the 1920s and are believed to have been destroyed by the expansion of the metropolitan area. Only 5 of the 21 documented sites are known to survive. The last known population in Scott county was destroyed in 1981 by industrial development. This species is a midwestern endemic and is rare or threatened wherever it occurs.

PREFERRED HABITAT IN MINNESOTA:

Besseyia bullii prefers gravelly soil on dry prairies, bluffs and high-lime prairies. it may also occur in open woods and savannas.

RECOMMENDATIONS: A search should be made for remnant populations which may survive in the Twin Cities area. Efforts should be directed to bluffs bordering the Mississippi, Minnesota and St. Croix Rivers.





WHAT'S NEW IN BOOKS??

ACID RAIN

By Robert H. Boyle and R. Alexander Boyle
New York: Nick Lyons Books, 1983
\$14.95

This book examines the very real and frightening problem of acid rain. Boyle presents the problems associated with acid rain across the country. Acid rain is now falling on sensitive lands and waters in Minnesota, often at levels associated with the onset of lake acidification in Scandinavia. Acid rain poses potential problems not only to agricultural crops but also to native plants.

PLANT EXTINCTION: A GLOBAL CRISIS

By Dr. Harold Koopowitz and Hilary Kaye
Washington: Stone Wall Press, 1983
\$16.95

Harold Koopowitz and Hilary Kaye have put together the story of the threat to our planet's plant species. This book, highly acclaimed by critics, covers all aspects of plant extinction and conservation and the case history of selected species are cited to substantiate each chapter. This book is written for the laymen, intended to alert the public to the dangers of extinction, the importance of plants to man, what we are currently doing about plant conservation and what must be accomplished in the future.



WHERE HAVE ALL THE WILDFLOWERS GONE? A REGION BY REGION GUIDE TO THREATENED AND ENDANGERED U.S. WILDFLOWERS.

By Robert H. Mohlenbrock
New York: MacMillan, 1983
\$15.95

The author examines a selection of endangered wildflowers from all regions of the country. The history and future of these selected species are carefully outlined. This book is written in language for the laymen to understand. While it is by no means exhaustive of the topic, it is designed to increase the awareness of the reader for the preservation of our national treasures.

SELECTED REFERENCES:

Mickelson, C. J. and H. H. Iltis. 1966. Preliminary reports on the flora of Wisconsin #50. *Wisc. Acad. Sci. Arts and Letters* 55:187-222.

PREPARED BY: Welby Smith, Botanist, Natural Heritage Program.

PROPAGATING ENDANGERED PLANTS

The aim of any conservation program designed to save endangered plant species, should be the protection of a plant's natural habitat. An alternative method of conservation - growing the plant in a botanic garden or other area outside the natural habitat - is generally not as successful, both in terms of maintenance cost and potential genetic change within a species. Moreover, by placing too much emphasis on ex-situ conservation (opposed to protection of the plant in its habitat - known as in-situ preservation) botanical gardens, like their zoological counterparts, run the risk of holding the last specimens of a species which no longer exists in the wild - an obviously hollow victory for conservation.

Specimens of endangered species that are grown in botanical gardens, however, may serve many valuable purposes. They may be used as part of living exhibits to educate the public and as reserve stocks for propagation research and replacement of obliterated wild populations. Propagation research can provide important insights into a species' behavior in the wild. Furthermore, should it be deemed prudent to reintroduce a species to its original wild habitat, the means will be known for approximating the original genetic type.

Propagation of endangered species is not always successful or straight-forward. Some species, such as many native terrestrial orchids, are difficult or impossible to cultivate, let alone propagate in a botanical garden. With those species of plants that can be cultivated, the chance exists that propagation information derived from cultivated plants may differ from that of wild plants.

Some endangered species may be readily propagated, and for these, propagation can raise useful questions for botanists who study plants in the wild. For instance, what might account for a species' ease of propagation and cultivation in the controlled environment of a botanical garden while the wild populations continue to decline? Is the decline due solely to habitat destruction or is the species, perhaps, not a good competitor? Maybe its pollination and dispersal mechanisms are not successful or predators are taking their toll. For each species,

the answer lies in the long-term study of the species' biology; but, propagation research can supply valuable information regarding the potential success of the species under "ideal" conditions in the wild.

Adapted from an article by William Brumback that appeared in the Spring, 1983, issue of Wildflower Notes and News, published by the New England Wild Flower Society, Inc.

NINTH NORTH AMERICAN PRAIRIE CONFERENCE

The Ninth North American Prairie Conference will be held in Moorhead, Minnesota, 29 July through 1 August, 1984. The theme of the Conference, hosted by Concordia College, Moorhead State University, and North Dakota State University, is: The Prairie: Past, Present, and Future. The Conference program includes invited speakers, contributed papers, symposia, workshops, poster sessions, and field trips devoted to various aspects of prairie ecosystems. The ecology, management, restoration, classification, interpretation, utilization, and preservation of prairies are some of the topics scheduled for consideration. Others include prairie wetlands, landscaping with prairie species, and the ecology of pre-European people on the prairie. The latter topic is being given special emphasis at the 1984 meeting. Pre-conference and post-conference field trips are also planned for those interested.

Previous conferences have been attended by people whose interests in the prairies vary from ecology to range management to restoration and landscaping to prairie conservation and, finally, to prairie poetry and photography. This year, for the first time, we are expanding our audience to include those interested in and working with questions relating to prairie people - including pre-European people and the impact of European settlement on the prairie.

For further information on the Conference contact: Dr. R. H. Pemble
Department of Biology
Moorhead State University
Moorhead, Minnesota 56560
(218)-236-2572

MNPS FINANCIAL

STATEMENT

July 15, 1983 to November 1, 1983

RECEIPTS

Membership dues	\$122.00	
Draft Dividends	5.44	
Savings Dividends	3.73	\$131.17

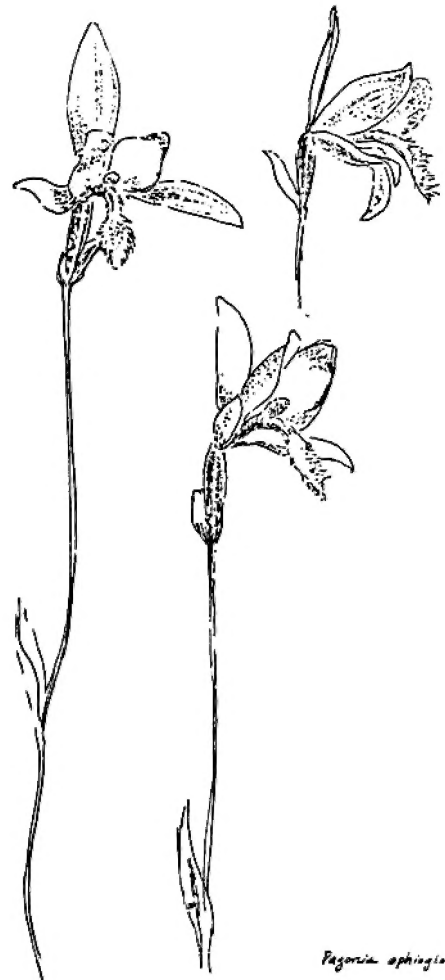
EXPENSES

Lawyer fees for incorporation	\$118.74	
Postage	20.00	
Supplies and misc.	19.83	\$158.57

BALANCE ON HAND \$925.59

RECONCILIATION

Draft Account	\$513.52	
Savings Account	392.07	
Petty Cash	20.00	\$925.59



Pogonia ophioglossoides

Rose pogonia

Sketches done by Vera Ming Wong in the
Lost River Peatland

INVITATION

Members of the Minnesota Native Plant Society are invited by the Minnesota Native Camera Club on their field trip, February 4. It will be held at the Izaak Walton Nature Center, 6601 Auto Club Road, Bloomington, from 10 am to 4 pm. Bring your lunch; coffee and doughnuts will be provided. Trip leaders are Goodman Larson (935-4108) and Aaden Aanestad (929-9071). We should see active birdfeeders, deer, fox, babbling brooks, ice, green plants, and much more. There will be prizes for the best winter shots in botany, zoology, general and scenic. Submit a maximum of two slides per category by March 12, 1984. The judges are: Walter Breckenridge, Wayne Pierce and George Hedrick. Directions for getting to the Nature: From Radison South on Hwy. 100 and 494, go south on Normandale a few miles to Auto Club Road, turnwest and cross the railroad track, the Izaak Walton Nature center is on the south side, just north of the Minnesota River.

—Jim Nelson

MNPS DIRECTORY

OFFICERS:

Peg Kohring, President
Welby Smith, Vice-President
Deb Brown, Secretary
Steve Eggers, Treasurer
Evelyn Moyle, Director-at-large
May Wright, Director-at-large

COMMITTEES:

Publicity:

Jan Grew

Conservation:

Barbara Coffin

Newsletter:

Neil Anderson

CALENDAR OF EVENTS

- Feb. 1 - MNPS monthly meeting:
John Almendinger presents
"The Vegetation Patterns and
History of Minnesota's Jack Pine
Forests."
- Feb. 4 - Winter field trip to Izaak Walton
Nature Center, 6601 Auto Club
Road, Bloomington. 10 am - 4 pm.
- March 7 - MNPS Monthly meeting:
Mark McKone presents "What is an
individual plant?"
- April 4 - MNPS monthly meeting:
Norman Aasing from the Division
of Minerals, Department of
Natural Resources presents "The
Flora and Vegetation of Minnesota
Peatlands"
- April 15 - next newsletter deadline

Minnesota Plant Press is published by the
Minnesota Native Plant Society, 220 Biological
Sciences Center, 1445 Gortner Avenue,
University of Minnesota, St. Paul, Minnesota,
55108.

- May 2 - MNPS monthly meeting:
consisting of two presentations:
1.) Barbara Coffin of the
Minnesota Natural Heritage
Program, Department of Natural
Resources presents: "The Flora
and Vegetation of Old Growth
Northern Hardwood Forests in
Minnesota"
2.) A slide show on past field trips
of the Native Plant Society plus
a discussion of upcoming trips.

MNPS monthly meetings are at 7:30 pm in the
Palmer Classroom Building, Room 10, University
of Minnesota, St. Paul Campus.

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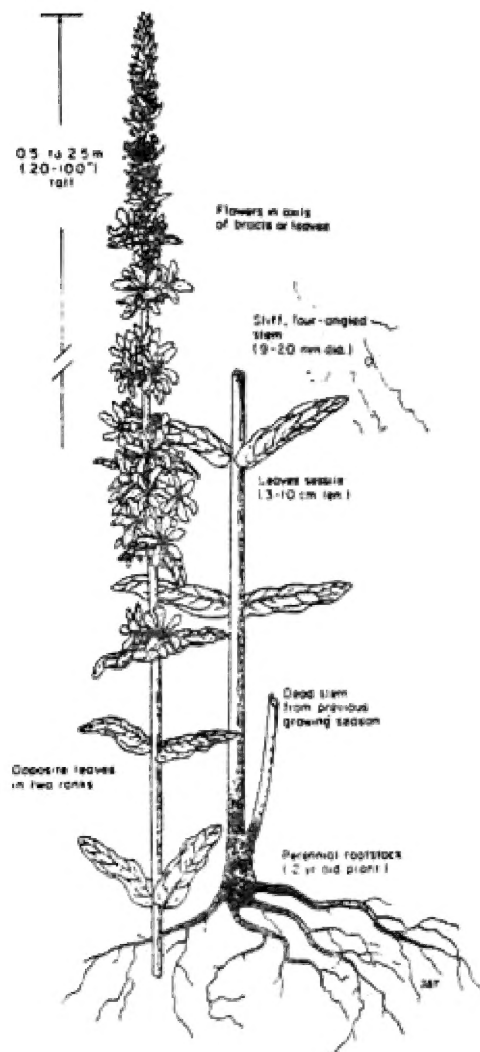
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55108. Peg Kohring, President; Welby Smith,
Vice-President; Deb Brown, Secretary; Steve
Eggers, Treasurer; Evelyn Moyle and May
Wright, Directors-at-large; Neil Anderson,
Editor. Minnesota Plant Press may be obtained
through membership in the society:
Single—\$8.00, Family—\$10.00, Student—\$6.00.



MINNESOTA PLANT PRESS

VOLUME 3 NUMBER 2 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY SPRING 1984

NATIONAL LOOSESTRIFE ALERT



The last issue of the MNPS newsletter included an article on the Purple Loosestrife, an escaped exotic that poses a serious threat to native vegetation. The following article describes the threat on a National level, delineating the important role eradication in Minnesota will play in hampering the further spread of purple loosestrife.

Purple loosestrife (Lythrum salicaria) is an erect, perennial, wetland herb that was probably introduced from northern Europe. By the late 1800's, it had spread throughout the northeastern United States and Canada. It caused few problems until the 1930's when it became an aggressive weed in Quebec pastures. Since then it has become a serious threat to native emergent vegetation in shallow-water marshes throughout the northeastern, northern, and central regions. In the last 20 years, L. salicaria has become established in reclamation projects and riparian wetlands in the West and Northwest.

Identification. Purple loosestrife is most easily identified during its long season of bloom (1 July to 10 September). At this time, the characteristic reddish-purple flower spikes can be identified with the naked eye at 100 yards.

--Continued on page 2--

Minnesota Native Plant Society Membership Registration

Mail to: MNPS, 220 Biological Sciences Center, University of Minnesota, St. Paul, MN 55108

___ New Member

___ Renewal

Membership Categories:

\$8.00	___ Individual	\$6.00	___ Senior(over 62 and retired)
\$10.00	___ Family (Two or more related individuals at same address)	\$15.00	___ Institution
\$6.00	___ Student (Full-time)	\$25.00	___ Donor

Name _____ Address _____

City _____ State _____ ZIP _____ Phone _____

Loosestrife Alert--from page 1

Reproduction and Spread. L. salicaria is a prolific seed producer; seeds begin to set in mid-July in early flowers and continue to mature as flower development progresses into late summer. Once seeds have been set by even a few plants within a watershed or basin, colonization to the limits of high water is probable.

Seed dispersal is by wind or water. Dispersal can also occur in dried mud on birds' feet, fur of muskrat or mechanical clippings can hasten the spread and dominance of the plant if allowed to float within an impoundment.

In addition to natural modes of spread, horticultural hybrids of Lythrum are shipped as rootstocks; segregates of these plants are frequently sources of local escapes. At least one apiculture supply house sells purple loosestrife seed for "naturalization" as a wetland honey plant.

Growth requirements. L. salicaria prefers moist, high organic soils but tolerates a wide range of texture and parent material including sand, silt, clay, and muck. Purple loosestrife seedlings can become established on a bare strand during an early summer drawdown. Once established, the seedlings can survive shallow flooding to a depth of 12 to 18 inches in waters of low turbidity.

--Continued on page 7--

SEED EXCHANGE

Please keep the fall native plant seed exchange in mind this spring and summer when you're on wildflower trips. May Wright and Chris Soutter have provided the following guidelines for seed collection and storage.

Don't collect all the seeds from a plant or plant community. Remember that it is important to leave a portion of the seeds for natural dispersal and species proliferation. This is especially true with annuals. Be sure all fruits are fully mature before collecting. Fleshy seeds should be cleaned before drying, air dry all seeds, especially fleshy ones, to avoid chances of disease organisms or insects during storage. Label all seeds before storage! Store cleaned, dried seeds in a cool, dry place, checking periodically for insects or mold.

Please include the following information with each seed packet: scientific and common names, collection site, habitat type, date of collection storage requirements (approximate temperature and light levels), collectors name, address and phone number.

Sun
Soil

moisture requirements

If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: Neil Anderson.

WILDFLOWER OBSERVATIONS

RECORD OF WILDFLOWER OBSERVATIONS FOR THE MINNESOTA NATIVE PLANT SOCIETY

Place: RIVER BEND NATURE CENTER
 City: FARIBAULT, MN PO 265, 55021 Tel: 1-507-332-7151
 County: Rice Township: Walcott
 Landmarks: 6 mi. of marked trails (with trail signs)
 Habitat: Over 530 acres along the Straight River (flood plain); upland hardwood forest, and prairie areas (being developed). ***Because parts of the Nature Center areas had been heavily grazed and pastured, in earlier years, many flowers native to the area have disappeared. Therefore, these are being re-introduced into the Nature Center. Example: May Apples seem to be liked by cattle.
 Directions: Go east on State Highway 60, cross viaduct to Shumway Ave; turn right one block to Division St. East; turn left to 10th Ave. SE; turn right to Rustad Road; turn left to the Nature Center. (Two parking lots; Trailside Center at the lower parking lot, at end of road).
 Observer: Orwin A. Rustad, Naturalist

Date: July 18, 1983

Ron Osterbauser, Executive Director
 River Bend Nature Center

Some wildflowers at the RIVER BEND NATURE CENTER (A preliminary list)
 xx: reintroduced C: common

<u>Species</u>	<u>Date of bloom</u>	<u>Observation</u>
Anemone, Canada	June 14 C	
Anemone, False Rue (<u>Isopyrum</u>)	April 28 C	
Anemone, Rue	April 28 C	
Anemone, Wood	May 6 C	
Bedstraw, Northern	June 4 C	
Bellflower, American (Tall)	July 14 C	
Bellflower, European (Creeping)	June 14 C	
Bellwort, Large-flowered	May 4 C	
Bergamot, Wild (Horsemint)	July 14 C	
Bird's-foot-trefoil	June 28 C	
Bloodroot	April 10 C	
Blue Cohosh	May 5 C	
Bouncing Bet	July 12 C	
Butter-and-eggs	July 9 C	
Chicory	July 1 C	Along entrance road, 10th ave SE
Clover, Red	June 11 C	
Clover, White	June 11 C	
Clover, Whitesweet	June 29 C	
Clover, Yellow sweet	June 12 C	
Columbine	May 12 C	

Columbine	May 12	C	
Cow Parsnip	June 11	C	Trout Lily trail
Daisy Fleabane	June 11	C	
Dutchman's breeches	April 24	C	
Dwarf Dog-tooth Violet(Trout Lily)	May 1	C	Trout Lily and Owl trail
<u>E. propullans</u>			
White Dog-tooth Violet(Trout Lily)	April 27	C	Trout Lily and Oak trail
<u>E. albidums</u>			
Goat's Beard (<u>T. pratensis</u>)	May 11	C	Rustad Rd, roadside
Golden Alexanders	May 20	C	Trout Lily trail
Hedge Bindweed	July 16	Not common	
Hoary Alyssum	June 11	C	
Jack-in the-Pulpit	May 6	C	(in limited areas)
Marsh Marigold	May 8	C	Spring fed pond area
May Apple	May 31	Cxx	Oak,Owl, Trout Lily trails.
Meadow Rue, Early	May 6		
Motherwort	June 24	C	
Mullein, common	July 8	C	
Nodding trillium	May 11	not common,	Oak and Owl trails
Ox-eye Daisy	June 28	C	
Rose-Smooth wild	June 11	C	
Salsify (Oyster plant) <u>T. dubius</u>	June 9	C	Rustad Road, roadside
Sharp-lobed Hepatica	April 23	C	
Spring Beauty	April 25	C	
Sweet Cicely	May 27	C	
Toothwort (Cutleaf)	May 6	C	
Vetch, American	June 5	C	
Violet, Downy Blue	April 29	C	
Violet, Yellow	May 20	C	
Virginia Waterleaf	May 21	C	
Wild Geranium	May 12	C	
Wild Ginger	April 25	C	
Wild Blue Phlox	May 12	C	
Wild Strawberry	May 12	C	
Yellow (large-flowered) Lady slipper	May 18	Not common xx-reintroduce	Near bldg. Trailside center.

PRAIRIE CONFERENCE REMINDER

Don't forget the Ninth North American Prairie Conference to be held in Moorhead, Minnesota, 29 July through 1 August, 1984. The Conference theme is: The Prairie: Past, Present and Future.

See the winter Minnesota Plant Press for further details or contact: Dr. R. H. Pemble,

ATTENTION ALL PHOTOGRAPHERS

Start planning what four botanical slides you will submit to the Minnesota Botany International Exhibition next October. This salon is cosponsored by the MNPS and the Mn. Nature Photography Club. The deadline for submission of slides is October 4, 1984, and the judging will be held October 13, 1984, at Twin City Federal at 50th and France (Edina). Visitors are Welcome. Entry forms can be obtained from Jean McIntosh,

SPECIES STATUS SHEET

SCIENTIFIC NAME:

Chrysosplenium iowense Rydb.

FAMILY: Saxifragaceae

COMMON NAME: a species of Golden Saxifrage

STATE STATUS: Endangered

FEDERAL STATUS: Currently under review by the Department of Interior for listing as a threatened species under the Endangered Species Act of 1973 (Public Law 93-205, enacted December 28, 1972; amended 1978. Federal Register 45(242):82480, December 15, 1980).

BASIS FOR MINNESOTA STATUS: This species is thought to be relict of Minnesota's pleistocene flora which survived the most recent glacial advance in the "Driftless Area". It remains isolated in the Driftless Area by severe habitat requirements that cannot be met in the glaciated portions of the state. All five Minnesota populations of this species occur within seven miles of each other. Two of these populations have been degraded by cattle grazing and one consists of only a few individuals and may not be viable.

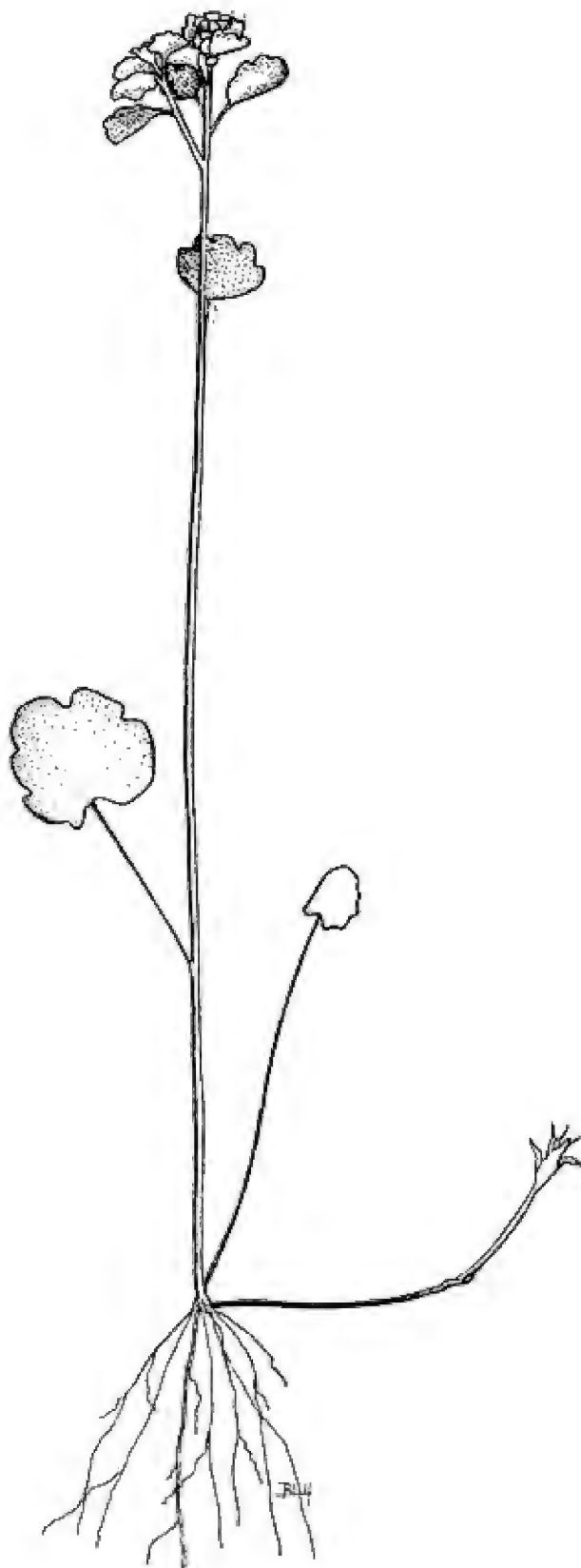
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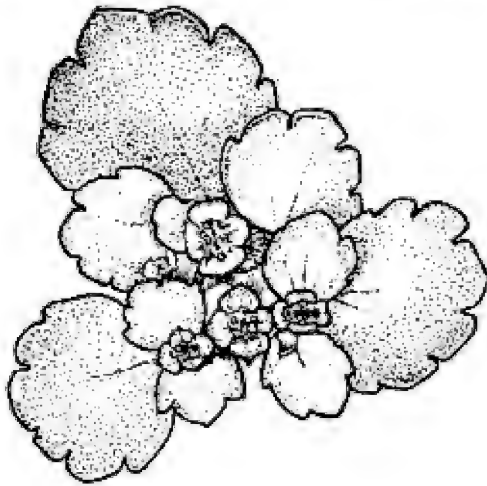
Chrysosplenium iowense has been found only on algific talus slopes associated with dolomite formations in the Galena geological group. The term "algific" means "cold producing" and results from cold air draining from ice caves in fossil talus slopes. These slopes are periglacial features and are often quite small (i.e. a few square feet). These phenomena are very localized and restricted to the unglaciated region in Minnesota and adjacent Iowa.

RECOMMENDATIONS: A high priority should be given to the preservation of the known algific talus slope habitats. Additional searches for undiscovered habitats should concentrate on the Root River Valley in Fillmore County.

SELECTED REFERENCES:

Packer, J. G. 1963. The taxonomy of some North American species of Chrysosplenium, section Alternifolia Francet. Can J. Bot. 41:856-103.





Rosendahl, C. O. 1947. Studies in Chrysosplenium, with special reference to the taxonomic status and distribution of C. iowense. Rhodora 49: 25-35.

PREPARED BY: Welby Smith, Botanist, Natural Heritage Program.

NEW BOARD MEMBERS ELECTED

At the April 4, 1984, monthly meeting of MNPS, elections were held to fill the four vacant positions on the Board of Directors. The election results are as follows:

Harriet Mason	40 votes
Steve Eggers	39
Roger Eliason	35
Neil Anderson	31
Sandy Hansen	30

Our new board members are: Harriet Mason, Steve Eggers, Roger Eliason and Neil Anderson.

Steve Eggers - works for the Army Corp of Engineers and has been instrumental in preserving wetlands along the Minnesota River. Steve has led field trips for the native plant society and has given a talk on wetlands. Steve will lead a field trip to the Weaver Bottoms area along the Mississippi River this spring.

Neil Anderson - is a native of Vermont who received his bachelor degree at Calpoly San Luis Obispo where he was a member of the California Native plant Society. Neil is serving as the MNPS newsletter editor. He is currently working on a masters degree at the Univ. of Minnesota in the horticulture program.

Sandy Hansen - received her bachelors from the University of Michigan and a masters in botany from the University of Maine. She was active in the Joslyn Botanical Society in Maine and focused her interests on response of plants to forest fires and forest herbs. Sandy is assisting with the layout of the MNPS newsletter.

Roger Eliason - Roger works in the University of Minnesota's soil lab on campus. Roger has been active in assisting the Minnesota Heritage program with ginseng monitoring.

Harriet Mason - Harriet is working on her doctorate in the botany department of the University of Minnesota. She is studying the floristics of Nerstrand Woods located in Rice County. Harriet has led trips for the MNPS and is active in the management of Nature Conservancy preserves.

The Board of Directors presently consists of: Peg Kohring, Welby Smith, Deb Brown, Steve Eggers, Neil Anderson, Roger Eliason, Harriet Mason, Evelyn Moyle and May Wright. Officers will be selected by the board in June.

Notice of Public Hearing

A public hearing will be held concerning the proposed expansion of the boundary of discretionary authority over wetlands adjacent to Savage Fen in Scott County, Minnesota. The hearing will be held on Wednesday, May 23, 1984, at 2:00 p.m. in Room 634 of the U.S. Post Office and Custom House, 180 East Kellogg Boulevard, St. Paul.

The U.S. Army Corp of Engineers has authorized the exertion of discretionary authority to require individual permits for any future filling activities in the 40 acre Savage Fen. All interested MNPS members are urged to attend. The Minnesota Native Plant Society will be officially represented at the meeting by Nancy Sather.

Although purple loosestrife is sensitive to high salinity or alkalinity, it has invaded seepage pastures in southwestern Idaho with pH 7.7. Purple loosestrife prefers full sun but can survive in 50% shade.

Control. Although *L. salicaria* can be controlled in local areas accessible to machinery with combinations of mowing, spraying or discing, the cost of control becomes prohibitive once the plant is established over a marsh basin or impoundment floodplain. Some form of biological control, in combination with the following local practices, is urgently needed.

Local Eradication. At present, the key to purple loosestrife control lies in recognition of the first appearance of young plants; these should be grubbed or hand pulled and the entire plant removed from the wetland basin. Mature plants cannot be hand-pulled; on upland sites they can be spot treated with glyphosate or a 50/50 mixture of dicamba and 2,4,-D. Since neither of these formulations is cleared for use in marsh or aquatic habitats, we recommend spot application of 2,4-D with a hand sprayer. Whatever chemical you choose, be sure that its label includes clearance for aquatic sites.

Water Management Options. Once *L. salicaria* has become firmly established in a large wetland or watershed, control becomes increasingly expensive and the wetland manager loses options in shallow-water or moist-soil management.

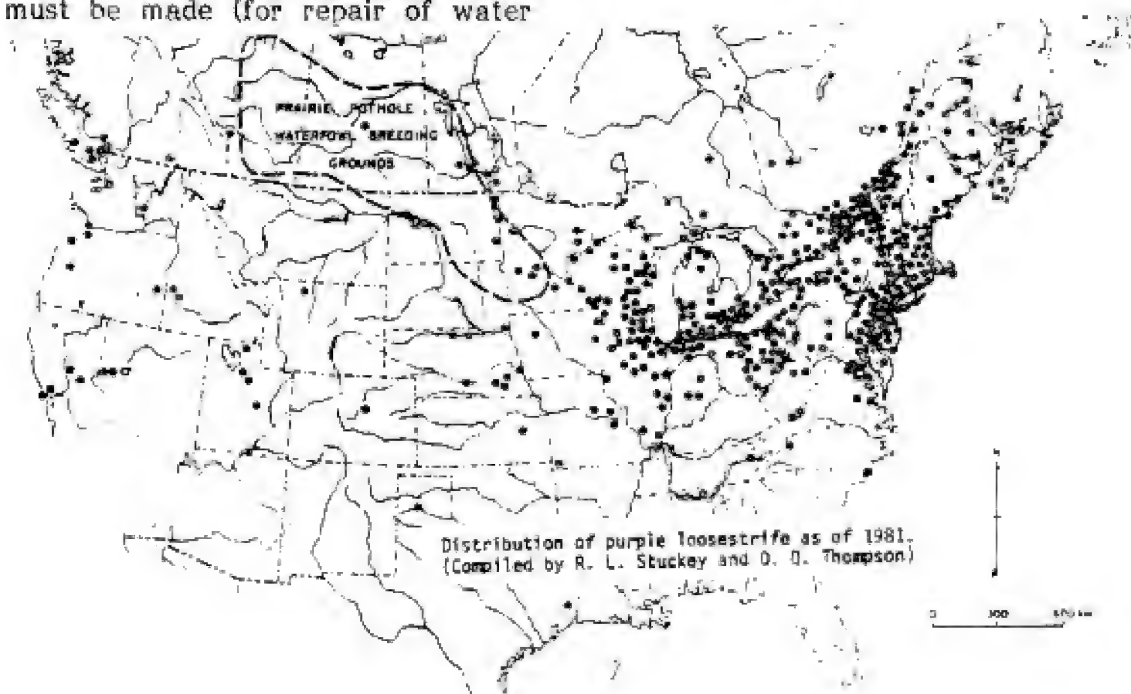
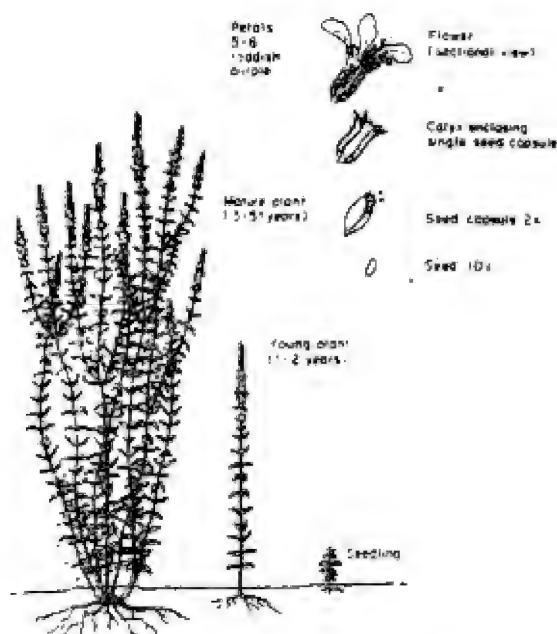
Minimum disturbance to the wetland community is the key to coping with *L. salicaria*. If a drawdown must be made (for repair of water

control structures, etc.), it should be delayed until mid-July or later so that the time for *L. salicaria* seedling development is minimized. This will assure maximum seedling mortality following reflooding.

IF YOU THINK YOU HAVE FOUND PURPLE LOOSESTRIFE IN ONE OF YOUR MANAGEMENT UNITS, CALL OR WRITE:

Daniel Q. Thompson, USF&WS
270 Aylesworth Hall, CSU
Fort Collins, CO 80523 Phone: 303 491-7002

Tom Jackson, USF&WS
Box 25007, Denver Federal Center
Denver, CO 80225 Phone: 303 234-3845



MAY & JUNE IN THE WILDFLOWER GARDEN

By May Wright

May and June are good months for just enjoying a wildflower garden. After the few early flowers of March and April, there is a rush of bloom in the deciduous woodland area. Dutchman's breeches, false rue anemone, trout lily, wood anemone, bishop's cap, trillium, yellow lady's-slipper, mayapple and many more parade in quick succession. Likewise in the prairie garden, the delightful pasque flower may be through blooming, but the prairie smoke, birdsfoot violet, hoary puccoon and blue lupine soon add spots of color. Goldthread, dog violet, starflower and bunchberry make intriguing designs under the evergreens after the early trailing arbutus and bearberry are gone.

These spring months are excellent for having picnics and enjoying the wildflower areas free of mosquitoes, but there are some gardening chores that can be done then, too, such as the following:

1. The over-winter mulch can be removed gradually. Now or a little later it can be replaced with mulches for summer *viz.* half-decayed leaf compost around the base of the plants in the deciduous woodland, pine-needle mulch in the north-woods garden and grass clippings in the moist prairie.
2. Extraneous material such as dandelions and chickweed should be pulled out by hand. Cultivation can injure shallow-rooted plants and disturb new seedlings. The ubiquitous elm and buckthorn seedlings should not be allowed to become entrenched.
3. Plants that spread rapidly, such as the swamp buttercup and wild ginger, can be kept in check by cutting them back each spring. Some violets, such as the common blue and confederate, are really not very "shy", they had best be put by themselves in a shady corner.

4. Diseased plants or parts of plants should be removed. Steps can be taken to cut down on slug damage. Stale beer or yeast in warm water in a shallow dish usually reduces their numbers. It has also been found that coarse hair clippings around a favorite plant can keep them away.
5. Notes taken on time of flowering and on the weather and its effects may help in next year's planning.

Up to this point we have been dealing with the established wild flower garden. If, instead, you would like to start one or expand the one you have, there is still time. As in all gardening, it is best to plan ahead. Early spring-blooming plants had best be ordered and planted in the fall while they are still dormant, but some of the later-flowering ones can be planted in the spring. There are a few nurseries in the Twin Cities and surrounding area that propagate some of the native wild flowers, along with their cultivated perennials, and sell them as potted plants in the spring. Try Windsor Nursery in St. Paul or Park, the Rice Creek Garden, and Merle Kratoske's in the Minneapolis area.

Easy plants to start with are the wild geranium (Geranium maculatum) and wild columbine (Aquilegia canadensis) and cardinal flower (Lobelia cardinalis) can be used in low, moist, sunny spots or in partly shaded areas. The tiny long-leaved bluet (Houstonia longifolia) and the narrow-leaved purple coneflower (Echinacea angustifolia) of the Minnesota prairie should have lots of sun and a sandy soil that gives good drainage. Of course potted plants will be more expensive than the bare-rooted ones that can be obtained in the fall from various nurseries.

To expand the garden, some vegetative propagation can be done in early May. Don't disturb those in flower or about to flower, but

others can be divided. The basal rosettes of the cardinal flower can be separated and similarly, the offsets of the large-flowered penstemon can be cut apart. Native ferns add interest in the wild flower garden. One of the most satisfactory is the maiden-hair fern. Before its curled up fronds, "fiddleheads", are fully opened, the end pieces of the rootstock can be cut off to start new plants.

Because they need long cold periods prior to germination, many wild flower seeds germinate better when planted in the fall or very early spring. There are others however that do quite well with no cold treatment or with only a couple of weeks of cold (40°F.). The latter can be given their necessary two weeks and still

be planted in May. Here are a few examples: blue flax (Linum lewisii), hare bell (Campanula rotundifolia), black-eyed susan (Rudbeckia hirta), wild bergamot (Monarda fistulosa), purple cone-flower (Echinacea purpurea) and among the grasses, blue grama grass (Bouteloua gracilis). Lupine (Lupinus perennis) does well with fresh seed that can be obtained at this time. With older seed scratch the coat lightly and soak the seed in water for a few hours before planting. As with other legumes, a dusting of the seed of Nitrogen (a powder of nitrogen-fixing bacteria) helps the seedling to grow. Fresh seeds of bishop's-cap (Mitella diphylla) can be obtained during these months. They will germinate quickly.

Seeds of native plants may be obtained from seed exchanges such as that of the National Rock Garden Society and our Minnesota Native Plant Society, also from the following:

Midwest Wildflowers, Box 64, Rockton, IL 61072

Little Valley Farm, RR1, Box 287, Richland Center, WI 53581

Prairie Restorations, Inc., P.O. Box 327, Princeton, MN 55371

Stock Seed Farms, Inc., RR1, Box 112, Murdock, NE 68407

Some of these places offer seeds of plants other than natives. Shun the introduced species.

If seeds had been set out in flats or other containers in the fall, they will need to be transplanted when the true leaves appear. Put into separate containers, they can develop further and be hardened gradually until strong enough to be put into their permanent place. It is necessary to do this transplanting early in the spring so that the seedlings will be large enough to withstand the summer.

Take time in May and June to walk through the woods and prairie preserves. Learn about the plants that are new to you. Find out their names and note their growing conditions and their companion plants. Apply this knowledge in your garden. Southeastern Minnesota is particularly rich in wild flowers in bloom during these months.

Wild flower gardening is one way of learning about our native plants and enjoying them thru their various stages. Only those who know and appreciate them are likely to put an effort into preserving them and their habitats for future generations.

PRESERVATION OF GENETIC PURITY

By Douglas Wade

During the past 40 years, there have been used in all of the prairie peninsula states thousands of pounds of western strains (including named cultivars) of prairie grasses and a few forbs. Furthermore, by about 1978, there were at least twelve prairie nurseries in Wisconsin, Illinois, and Minnesota, and an increase of agricultural and horticultural seed companies and nurseries marketing prairie species. There has even been free distribution of western-origin prairie "cultivars" by the Soil Conservation Service.

Much of this activity has resulted in a biological invasion which should be viewed with alarm. It is threatening to the genetic and ecological integrity and diversity of natural prairie remnants and has opened a genetic Pandora's box, because of widespread collection and distribution of seeds and plants from reconstructed prairies. Operators of several large concerns have gone so far as to advertise Eurasian species as native to North American prairies; others have offered them in their prairie listings, without comment.

With this perspective, there is great need to clarify such matters as the mixing of prairie plant gene pools and the aggressiveness and phenology of western strains when introduced into eastern sites. Perhaps a moratorium is needed on certain kinds of distribution. Or, ideally, why shouldn't there be a strong ethical movement aimed at keeping as pure as possible the whole prairie movement, including restorations and the whole range of landscaping, horticultural, and agricultural efforts? Admittedly, in facing this question certain aspects of rangeland and prairie pasture or hay use will be tough to resolve, though one guiding principle should clearly be that high-quality, pristine tracts should be stringently protected in order to preserve a diversity of indigenous gene pools.

Indeed, any broad-based ethic involving all kinds of prairie management will be most difficult to invoke: the prairie constituency is widespread geographically and diverse in aims and background. Nevertheless, prairie workers need to debate and come to terms with ground rules to strengthen a genetic heritage ethic. This is

the spirit of the following provisions which can be refined or amplified: 1) Don't contaminate high quality native prairie remnants with outside introductions; 2) help to develop and honor a careful system of permission and techniques applicable to seed collecting on dedicated preserves and scientific areas; 3) on prairie reconstructions, use seeds from the closest sources known to be free of western strains or other far-distant introductions; and 4) if you buy prairie seeds or plants, carefully check out the dealers and avoid those who sell cultivars or exotics and are vague about the sources of their seeds and plants.

from RESTORATION & MANAGEMENT NOTES
Vol. 1(1), June, 1981

ENDANGERED OR THREATENED?

Minnesota for the first time has an official list of state endangered, threatened and special concern species. A total of 287 native plants and animals have been listed: 57 species as endangered, 49 species as threatened and 181 species as special concern. The effort which began in July 1981, in accordance with the provisions of Minnesota's new Endangered Species Law (MN Statute 97.488), was completed in January of this year. DNR staff worked closely with a 30-member technical advisory committee that was appointed specifically to assist in the process of developing a state list.

The establishment of a state list is a great step forward. DNR views the educational value of this list as one of its most important contributions to natural resource management. A state list acts as an early warning system, alerting natural resource managers and the public that species and, hence, the habitats they depend on are experiencing problems. These problems can then be addressed at a state level before they become of concern at the national level. The list, in this manner, serves as a critical guide for establishing priorities for both state and private management activities and conservation efforts.

Copies of the State list are available from the DNR. Section of Wildlife, Box 7, St. Paul, MN 55155.

FIELD TRIPS

SPRING WILDFLOWERS AT NERSTRAND WOODS (RICE COUNTY)

Date: Saturday, May 5, 1984
Time: 9:30 a.m. to 3:00 p.m.

Meeting place: Picnic area parking lot in Nerstrand State Park. The park is located between Cannon City and Nerstrand. Travel directly west of Nerstrand following the Park signs to Nerstrand State Park.

Description: Nerstrand Woods is a fine example of a Minnesota maple-basswood forest. Carpeted with wildflowers in spring, this state park is a photographer's paradise. Participants will learn about land use and how it affects the structure of the forest.

Leader: Harriet Mason. Harriet is studying Nerstrand Woods for her doctoral dissertation in Botany at the University of Minnesota. Harriet and her husband Charles also serve as local TNC monitors for Kasota Prairie.

Accommodations: Camping sites are available at Nerstrand Woods State Park.

TRIP TO RICHTER WOODS COUNTY PARK

Date: May 12, 1984
Time: 10:AM at Richter Woods County Park Parking lot

Directions: Hwy 13 south to Montgomery take Co. hwy 26, 1½ miles west to Co Rd. 163, go south about ½ miles to the Richter Woods County Park on the west side of the road.

Description: A tour of Richter Woods — one of the finest old growth maple-basswood forests remaining in the state. The forest has a spectacular spring wild flower display.

What to bring: appropriate shoes for possibly muddy trails

Leaader: Keith Wendt - plant ecologist

Note: Early Birders may meet beforehand at Nerstrand Woods State Park, 7 a.m. for additional warbler watching. This 1280 acre remnant of the big woods, 16 miles southeast of Northfield, hosts many bird species. For directions and further information call Pat Leacock at 866-1266. Those interested can join Pat in camping at Nerstrand Woods Friday night and wake up to the dawn chorus of birds.

TRIP TO MAY WRIGHT'S FLOWER GARDEN

Date: Saturday, May 19, 1984
Time: 10 am to 1 pm

Directions: The address is 4157 Bellaire Ave., White Bear Lake. Take #61 north to Co. Rd. F. Then east on Co. Rd. F (about 1.5 miles) to Bellaire Ave., Then north ½ block. The house is ½ block from the lake, south of it, between Co. Rd. F and south Shore Blvd. Or, if coming north on East County Line (#120) go west on Co. Rd. F to Bellaire Ave.

Description: Example of the construction of several Minnesota habitats and their characteristic flora.

What to Bring: If the day is pleasant bring picnic lunch. Tea and coffee will be furnished.

Leader: Dr. May Wright

Note: If arrangements can be made, we may be able to go to Warner Nature Center in the afternoon to see the bog there. It is just a little farther north.

MNPS BROCHURE BEING MADE

The Minnesota Native Plant Society is formulating ideas for an official brochure designed to acquaint prospective members and the public at large with the Society. If you have copies of brochures from other native plant societies, they would provide useful ideas for the layout of the brochure. Contact Nancy Sather,

if you have brochures or suggestions.

TRIP TO JIM MC KEE PRAIRIE

Date: Saturday, June 9
Time: 9:30-11:30 a.m.

Description of trip: Jim McKee Prairie is an undisturbed remnant of tall grass prairie in Ramsey County. The three-acre site is remarkable for its purity and diversity. Stargrass, Indian paintbrush, blue-eyed grass, puccoon, spiderwort and bearded bird-foot violet are among the plants flowering on the prairie in late spring. Jim McKee Prairie is owned by the City of Maplewood and is managed by Maplewood Nature Center.

Directions: Meet in the parking lot of Bulk Service Corp., 1300 N. McKnight Rd. (between Larpenteur Ave., and Maryland Ave.) in Maplewood. From Minneapolis, take I-94 east to McKnight Rd. Go north on McKnight until it intersects with Minnehaha Ave. and Stillwater Ave. (about one mile). Go northeast on Stillwater Ave. to the stoplights. Go north at the lights on Lakewood Dr. to Maryland Ave. (Beaver Lake will be on your left). Turn west on Maryland, then north on McKnight. Bulk Service Corp. is a few blocks north on the east side of McKnight just before the railroad tracks.

What to Bring: Wear long sleeves and long pants. Terrain is not difficult, but may be damp. May want to bring binoculars, hand lens, camera or sketch pad.

Leader: Chris Soutter, naturalist at Maplewood Nature Center.

SUSIE ISLAND: A BOREAL ADVENTURE (COOK COUNTY)

Date: July 21-22, 1984
Time: 10 a.m. to noon both days

Meeting place: Grand Portage Hotel parking lot, located along Highway 61 just west of Grand Portage.

Description: Due to the unpredictability of the weather, the trip is flexibly scheduled so that one day (we hope!) will be a visit to Susie Island and the other a tour of the Grand Portage area,

which may include Mt. Josephine, Partridge Falls, or Hat Point. Wave-washed Susie Island is as remote and inaccessible as anywhere in Minnesota. Along its rocky shores grow 10 species of rare plants, hundreds of miles south of their normal Arctic range. Lichen-draped spruce-fir forest rooted in thick peat covers the island interior.

Leaders: Jon Sanger and Tom Savage. Jon, a biology teacher at Ohio Wesleyan University, is a north shore native with extensive knowledge of the area's ecology and geology. Tom is a former Minnesota Chapter Chairman and has a special interest in Susie Island and the Grand Portage area.

NOTE: Because of the sensitivity of the area and difficulty of transportation, THIS TRIP IS LIMITED TO 20 PEOPLE. RESERVATIONS ARE REQUIRED. Please contact Julie at the Minnesota Chapter Office to secure your place. There will be a charge for boat rental (\$10-20). Bring bag lunches each day and dress for a potentially windy and wet boat ride. Participants are responsible for their own overnight accommodations. Possibilities are: Northwinds Cabins, Naniboujou Lodge, and other Grand Marais are motels or resorts. Rustic camping is available at Judge C.R. Magney State Park near Hovland.

PRAIRIE AND THE IRON HORSE: DODGE COUNTY PRAIRIE (DODGE COUNTY)

Date: Sunday, August 5, 1984
Time: 9 am - 1 pm

Description: An outstanding 34-acre remnant tallgrass prairie nestled between two railroad lines, Dodge County Prairie is one of the Chapter's newest acquisitions. Six rare plant species, including Sullivant's milkweed, wild quinine, and valerian thrive here. Amazingly enough, this gem was only discovered in 1981.

Meeting place: In front of the Cottage Shop Restaurant in downtown Hayfield.

Leader: Welby Smith, botanist for the Minnesota Natural Heritage Program and discoverer of the prairie. Welby is an expert botanist and can point out many of the 300+ plant species growing on the tract.

Rest facilities/accommodations: In hayfield.

PRAIRIES, PETROGLYPHS, AND OUTCROPS:
SOUTHWESTERN MINNESOTA (COTTONWOOD
COUNTY)

Date: August 11, 1984
Time: 8 a.m.

Description: Expandier Wildlife Management Area harbors 240 acres of prime, virgin tallgrass prairie dominated by lush stands of big bluestem. Upland sandpipers, marbled godwits, grasshopper sparrows, and numerous other prairie birds are found here. At nearby Jeffers Petroglyphs historic site visitors can explore prairie and ancient petroglyphs etched into the Sioux Quartzite bedrock. Stops at privately owned rock outcrop prairies with several rare plant species are also planned.

Meeting place: The east side of Courthouse Square in the center of Windom. Meet just across the street from the Uptown Expressway Cafe (a good breakfast spot). Bring a bag lunch and footwear for a possibly soggy prairie.

Leaders: Doug Wells and Keith Wendt. Doug, the DNR Area Wildlife Manager in Cottonwood County, manages Expandier WMA and is an expert birder. Keith is the plant ecologist for the Minnesota Natural Heritage Program.

Rest Facilities/Accommodations: Plan to make a weekend of it by staying at Kilen Woods State Park, with beautiful prairie and oak savanna. There are many other nearby sites to visit on your own on Sunday. Doug can give directions to these. Accommodations also available in Windom.

WEAVER BOTTOMS CANOE TRIP

Date: 18 August 1984
Time: 10 am

Directions: Weaver Bottoms is located in Wabasha County between Kellogg and Minneiska. From the Twin cities, take Highway 61 south to the Weaver boat landing. The landing is just off the east side of Highway 61. Look for the U.S. Fish and Wildlife Service refuge sign and the Weaver railroad shack. If you cross the Whitewater River, you've gone too far south. It's about a 2.5 hour drive from the Twin Cities.

Description: Weaver bottoms is a backwater of the Mississippi River and is composed of a diversity of wetland plant communities including deep marsh, shallow marsh and floodplain forest. The emphasis of the trip will be observing and identifying wetland plants. The highlight of the trip will be (hopefully) observing the extensive lotus beds in bloom. We will see a wide variety of submergent, floating-leaved and emergent plants. Also observed should be a number of species of waterfowl and wading birds. We will not be canoeing any great distance; we will simply be using the canoes for easy access to the wetland plant communities. This will be a joint trip with the St. Paul Audubon Society.

What to Bring: Canoe, insect repellent, lunch, rain gear, camera

Trip leader: Steve Eggers, an ecologist with the St. Paul District Corps of Engineers.

TRIP TO PRAIRIE RESTORATIONS, INC.

Date: August 25
Time: 10 am at the Nursery

Description: This trip will include a tour of our plant and seed production areas at the nursery. Greenhouse propagation, field production and seed processing will be discussed. Following lunch at the nursery we will travel 5 miles east to tour our seed production farm and also a small but highly diverse wet prairie remnant. An auto tour of the Sherburne National Wildlife Refuge 4 mi. west could close out the afternoon.

Directions: Five miles south of Princeton and 0.6 miles west of Highway 169 on Sherburn County Road.

Bring: Lunch, hiking clothes and field glasses. Water and a rest room are available at the nursery.

Leaders: Ron Bowen, John Bowen, Robin Suhsen, Lois Miller

A FEN IS MORE THAN A SWAMP: BLACK
DOG PRESERVE

Date: September 22, 1984
Time: 9 am to noon

Description: Black Dog Preserve is a unique fen and prairie complex in the metropolitan Twin Cities area. The preserve is a joint project of the Minnesota Chapter of the Nature Conservancy and the Minnesota Department of Natural Resources

Meeting place: Coming south from Minneapolis on 35W, take the Cliff Road exit immediately after you cross the Minnesota River. Follow the road east back under the freeway and then turn left onto Cliff Road. Park on the south end of the MTC Park and Ride Lot.

Leaders: Bob Djupstrom and Peg Kohring. Bob is Supervisor for the Scientific and Natural Areas Program of the Department of Natural Resources. Peg is Assistant Director for the Minnesota Chapter.

FALL ODYSSEY: ITASCA'S PINES AND BOGS
(CLEARWATER COUNTY)

Date: October 13, 1984
Time: 9 am - 3 pm

Description: Itasca, the oldest of Minnesota State Parks, is a refuge for towering 200-year old pines, soaring bald eagles and lumbering black bears. The 2,000-acre Itasca Wilderness Sanctuary, located within the park, will be the focus of this trip. A car caravan through the ten-mile wilderness drive (alive with fall colors, we hope!) will include several stops for hikes into the Sancturay.

Meeting place: In the parking lot for the Douglas Lodge, located in the park. This is a car caravan trip. Be sure to bring a bag lunch and "bog-stomping" boots.

Leaders: Ben Thoma and Paul Rundell. Ben, a biology teacher at Willmar Community College, is the park's head naturalist, with 25 years of experience at Itasca. Paul is the Regional Resource Coordinator for the DNR out of Bemidji, and a certified bog fanatic.

Rest facilities/accommodations: Camping available in the park.

MEMBER RELEASES BOOK

A reprint of Evelyn Moyle's book entitled Northland Flowers will soon be released! Available soon at your bookstore for \$12.95 (paperback), and \$19.95 (cloth).

BOOK SALE

Wildflowers of the United states by Harold William Rickett (Vols. 1-6 and Index) will be available for sale to the public at prices substantially lower than those offered by the publisher. The sale of these out-of-print volumes is being sponsored by the New York Botanical Garden. Promotional brochures will be mailed to MNPS members telling how you may purchase these.

IMPROVE YOUR WILDFLOWER PHOTOGRAPHY

The Nature Camera Club's monthly meeting on May 14 is entitled "Close-up Methods and Electronic Flash". The presentation, by Gary Ash (from the National Camera Club) will stress wildflower photography. The Camera Club meets at 7:30 p.m., in the community room in the basement of the Twin City Federal Bank building on the corner of 50th and France Avenue in Edina. Call Bruce Edinger at 332-1939 (evenings) for more information.

WILD INDIGO PRAIRIE STATE SCIENTIFIC AND NATURAL AREA

By Bob Djupstrum, DNR

A twelve and one half mile remnant of Southeast (SE) Minnesota (MN) Tallgrass Prairie, a plant community threatened throughout its range is to be found at Wild Indigo Prairie SNA. The unit occupies a former railroad line in Mower County which was one of the oldest railroads in the state. Less than 500 acres of this plant community type are known to exist in Minnesota.

Wild Indigo Prairie is an excellent example of SE MN Tallgrass Prairie, the most diverse prairie community type in Minnesota. The dominant grasses of this community are big bluestem and Indian grass. Broad leaved plants restricted to this community type and found on Wild Indigo include prairie wild indigo (state special concern species), wild quinine, (state endangered species), and Indian plantain (state threatened species). Additional rare species to be found include valerian (state threatened species), prairie mildweed (state threatened species), and white lady's-slipper (state special concern species).

Wild Indigo is a delight to visit from late April until snow fall since the prairie undergoes constant changes. Late April finds the princely flowering stalks of swamp saxifrage intermingled with vast members of valerian's bright green flowering stalks dominating the spring prairie landscape. Large patches of prairie smoke soon attempt to outcompete the valerian and saxifrage only to be soon outdone by other spring prairie species. Though early spring on Wild Indigo is so different than other Minnesota prairies, it is the middle of summer when the area really shines. The wild indigoes, compass plant, coreopsis, wild quinine, prairie clovers, prairie lily, blazing stars, gentians, native grasses, and many, many other common as well as rare species put on a show unlike any other to be seen in Minnesota.

For those interested in visiting Wild Indigo Prairie SNA it is an easy 2 hour drive to Brownsdale in Mower County, the heart of the unit. Numerous road crossings east and west of Brownsdale provide excellent access. Walking the area is quite easy by staying on top of the former railroad grade. Development of a rustic bike path on top of the railroad grade this summer will provide even better access in the future.

If you visit the area keep an eye out for the prairie white fringed orchid and prairie shooting star. Though these species have not yet been found on the unit there is a strong possibility that they may exist. Other rarities to look for include blundings turtle and upland sandpiper. If you should locate any of the above rare species notify the SNA Program.

Please remember to take nothing but pictures and memories of the area and leave your pets at home. If you desire further information please call the SNA Program at 297-3288 or write Box 6, 300 Centennial Building, St. Paul, MN 55110.

TREASURER'S REPORT

Nov.1, 1983 to March 15, 1984		
<u>Receipts</u>	\$692	692
(Membership dues)		
<u>Expenses</u>	217	217
(Printing and mailing)		
<u>Balance on Hand</u>		\$1,341
<u>Reconciliation</u>		
Draft Account	\$724	
Savings Account	597	
Petty Cash	20	\$1,341

ATTENTION!
 HAVE YOU PAID YOUR MEMBERSHIP FEES FOR THIS YEAR? YES NO
 IF NOT, PLEASE FILL OUT THE FORM ON THE INSIDE OF THE FRONT COVER.

- May 2 - **MNPS monthly meeting** consisting of two presentations: (1) Barbara Coffin, of the Minnesota Natural Heritage Program, Department of Natural Resources, presents: "The Flora and Vegetation of Old Growth Northern Hardwood Forests in Minnesota"; (2) a slide show on past field trips of MNPS, plus a discussion of upcoming trips.
- May 5 - Nature Conservancy trip to Nerstrand Woods (Rice County) to see spring wildflowers. 9:30 am to 3:00 pm.
- May 12 - Field Trip to Richter Woods County Park. 10 am.
- May 19 - Field trip to May Wright's wildflower garden. 10 am to 1 pm.
- June 9 - Field trip to Jim McKee prairie. 9:30 am - 11:30 am.
- July 21-22 - Nature Conservancy trip to Susie Island: A Boreal Adventure (Cook County). 10 am to noon. Reservations required. Charge for boat rentals.
- August 5 - Nature Conservancy trip to Dodge County Prairie. 9 am - 1 pm.

- August 11 - Nature Conservancy trip to southwestern Minnesota (Cottonwood county) to see prairies, petroglyphs and outcrops. 8 am.
- Aug. 15 - Next MNPS newsletter deadline
- August 18 - Weaver Bottoms Canoe Trip. 10 am
- August 25 - Field trip to Prairie Restorations, Inc. 10 a.m.
- Sept. 22 - Nature Conservancy trip to Black Dog Preserve (Dakota County). 9 am - noon.
- Oct. 13 - Nature Conservancy trip to Itasca's Pines and Bogs (Clearwater County). 9 am - 3 pm.

Minnesota Plant Press is published by the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, Minnesota, 55108. Peg Kohring, President; Welby Smith, Vice-President; Deb Brown, Secretary; Steve Eggers, Treasurer; Evelyn Moyle and May Wright, Directors-at-large; Neil Anderson, Editor. Minnesota Plant Press may be obtained through membership in the society: Single—\$8.00, Family—\$10.00, Student—\$6.00.

55108
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MINNESOTA PLANT PRESS

VOLUME 3 NUMBER 3 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY FALL 1984

NEW MINNESOTA PLANT IMMIGRANT



The Annual Eriogonum (Eriogonum annuum Nutt.) is normally found from the plains of Nebraska to Texas, New Mexico, and south into Mexico and has been reported on dry sites in the western Dakotas, Montana, and Wyoming. However, several populations consisting of about 200 plants were discovered in 1982 growing on sparsely vegetated sandy areas in the Sherburne National Wildlife Refuge near Zimmerman. This species is new to Minnesota and is, in fact, the only member of the large North American genus Eriogonum ever recorded from this state.

Based on seeding records, the accidental introduction of the Annual Eriogonum at the Sherburne Refuge probably occurred at least six years ago during the planting of contaminated prairie-grass seed obtained from Nebraska or the western Dakotas. The conditions under which it can compete successfully with established Minnesota plants appears to be very narrowly defined; however, in 1983 its numbers at Sherburne had increased some four or five fold, indicating that it may very well become a problem on open sandy areas at this site. Its presence has been called to the attention of the refuge staff, and its future development is being monitored.

—Steve and Charles Argue

Minnesota Native Plant Society Membership Registration
Mail to: MNPS, 220 Biological Sciences Center, Univ. of Minnesota, St. Paul, MN 55108

_____ New Member

_____ Renewal

Membership Categories:

\$8.00	_____ Individual	\$6.00	_____ Senior (over 62 or retired)
\$10.00	_____ Family (Two or more related individuals at same address)	\$15.00	_____ Institution
\$6.00	_____ Student (Full-time)	\$25.00	_____ Donor

Name _____ Address _____

City _____ State _____ Zip _____ Phone _____

U. OF M. CAMPUS ADDRESS: _____

NEW OFFICERS ELECTED

At the June 25 meeting of the Executive Board of the Minnesota Native Plant Society, the following slate of officers were elected:

President-Welby Smith
Vice-President - Steve Eggers
Secretary - Deb Brown
Treasurer - Roger Eliason

The assigned terms for the Officers of the Executive Board are as follows:

1983-1984
Deborah Brown
Evelyn Moyle
May Wright

1983-1985
Margaret Kohring
Welby Smith

1984-1985
Neil Anderson

1984-1986
Harriet Mason
Steve Eggers
Roger Eliason

CORRECTION

In the last issue of the Minnesota Plant Press, notice was given that information would be mailed to all MNPS members regarding the sale of Rickett's Wildflowers of the United States by the New York Botanical Garden. Due to an unavoidable mixup this will not occur. The information is listed below if you are interested in purchasing the set or any separate volumes.

Volume	Price \$
1 - Northeastern States	54 (2 parts)
2 - Southeastern States	74 (2 parts)
3 - Texas	(out of print)
4 - Southwestern States	81 (3 parts)
5 - Northwestern States	74 (2 parts)
6 - Central Mountains & Plains	81 (3 parts)
Index	28 (1 part)

The entire set (except volume 3) can be purchased for \$350.

Order from:

Scientific Publications Department
New York Botanical Garden
Bronx, NY 10458
212-220-8700

OCTOBER SEED EXCHANGE

The annual native Seed Exchange of the Minnesota Native Plant Society will be held on October 3, starting at 7:30 pm in the Palmer Classroom Building on the St. Paul campus.

Dr. May Wright will begin the evening with a presentation of methods that can be used to germinate the seeds, including meeting special needs of some of the seeds. Materials such as various potting mixtures and containers will be discussed and displayed. Dr. Wright will also tell how to find additional information on germinating certain species.

Seeds will then be made available to participants. A species list will facilitate seed selection and pick-up this year.

SUBMITTING SEEDS FOR EXCHANGE

All seeds to be exchanged must be Minnesota natives that are free of pests and disease. Please follow this guideline:

1. Collect only a small percentage of seeds from a plant and plant community.
2. Be sure fruits are fully mature before picking.
3. Label seeds with scientific and common names, collection site and date of collection.
4. Store in a cool, dry place and check seeds periodically for insects and mold.

When submitting seeds for the exchange, please add your name, address and phone number to the identification label.

Please submit seeds by mail before September 26 by mailing to:

Dr. May Wright

Seeds can also be dropped off at these locations before September 26:

South Minneapolis—Peg Kohring,
Southeast Minneapolis—Deb Brown,
St. Paul Campus—Deb Brown,
St. Paul, West Side—Chris Soutter,
Maplewood—Chris Soutter,
White Bear Lake—May Wright,

Seeds that could not be submitted before September 26 can be brought to the exchange and turned in before the workshop begins.

GERMINATION RECORDS

People germinating seeds are encouraged to keep a record of their methods and results. A form for this purpose will be available at the Seed Exchange. By collecting information on what does and does not work, we can increase our knowledge of propagation of native species.

If response to this project is good, the information will later be printed for distribution.

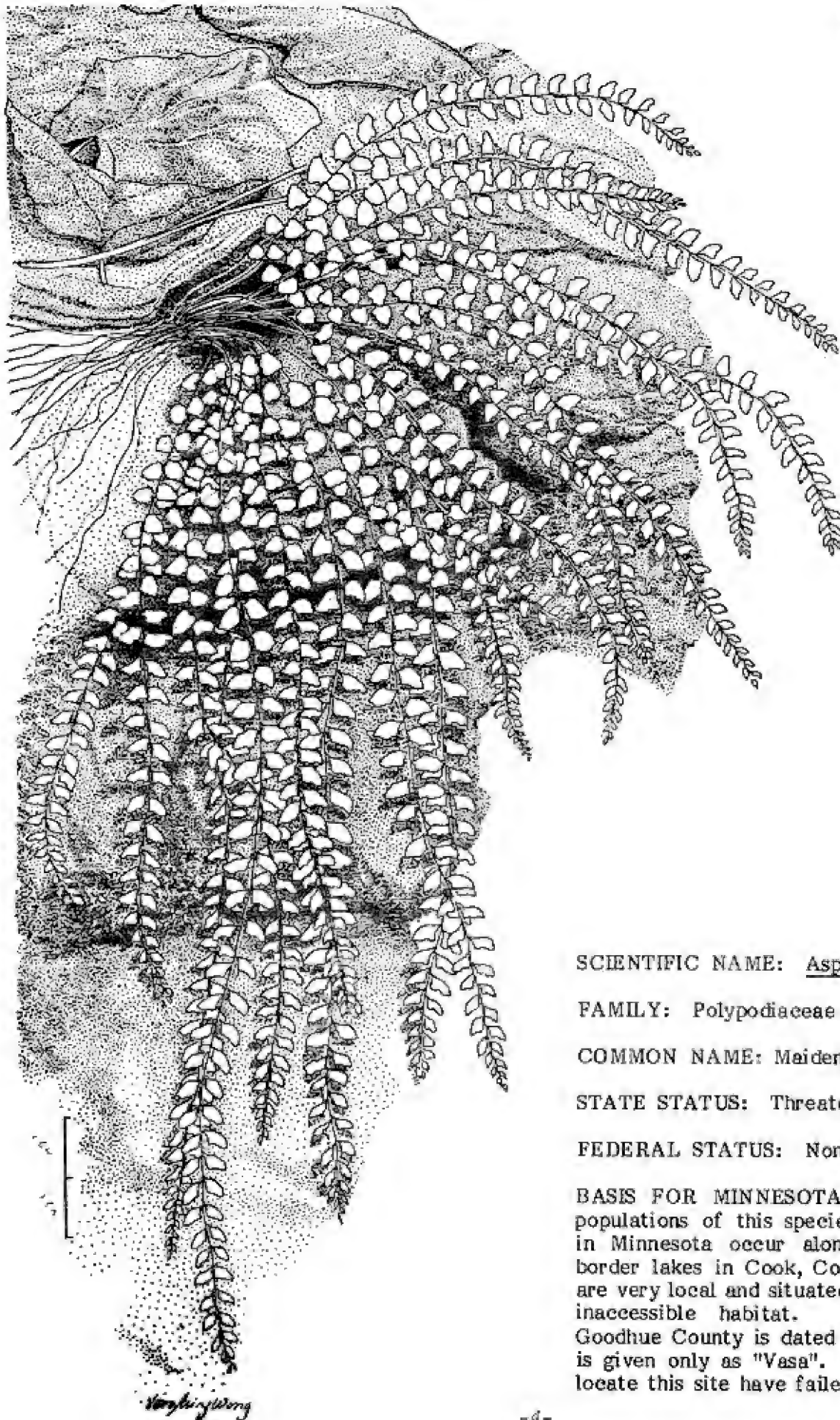
Chris Soutter

TREASURER'S REPORT

March 15 to August 10, 1984

<u>Receipts</u>	\$182	182
(Membership dues)		
<u>Expenses</u>	242	242
(Printing and mailing)		
<u>Balance on Hand</u>		\$1289
<u>Reconciliation</u>		
Draft Account	\$654	
Savings Account	615	
Petty Cash	20	\$1289

SPECIES



SCIENTIFIC NAME: Asplenium trichomanes L.

FAMILY: Polypodiaceae

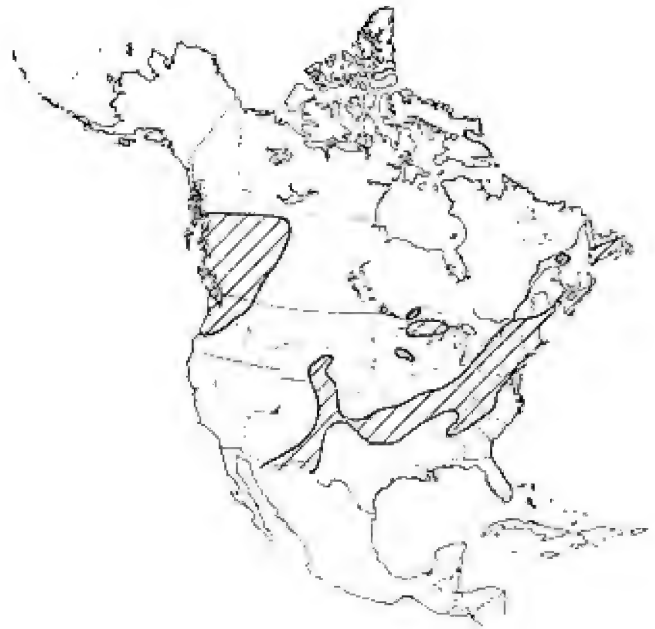
COMMON NAME: Maidenhair Spleenwort

STATE STATUS: Threatened

FEDERAL STATUS: None

BASIS FOR MINNESOTA STATUS: The only populations of this species known to be extant in Minnesota occur along a narrow strip of border lakes in Cook, County. The populations are very local and situated in a fragile, although inaccessible habitat. The collection from Goodhue County is dated 1895 and the location is given only as "Vasa". Repeated attempts to locate this site have failed and it may be gone.

STATUS SHEET



PREFERRED HABITAT IN MINNESOTA: This species occurs on ledges and crevices on moist, east-facing cliffs and occasionally on associated talus. Minnesota populations belong to the diploid subspecies trichomanes which apparently prefer noncalcareous rocks.

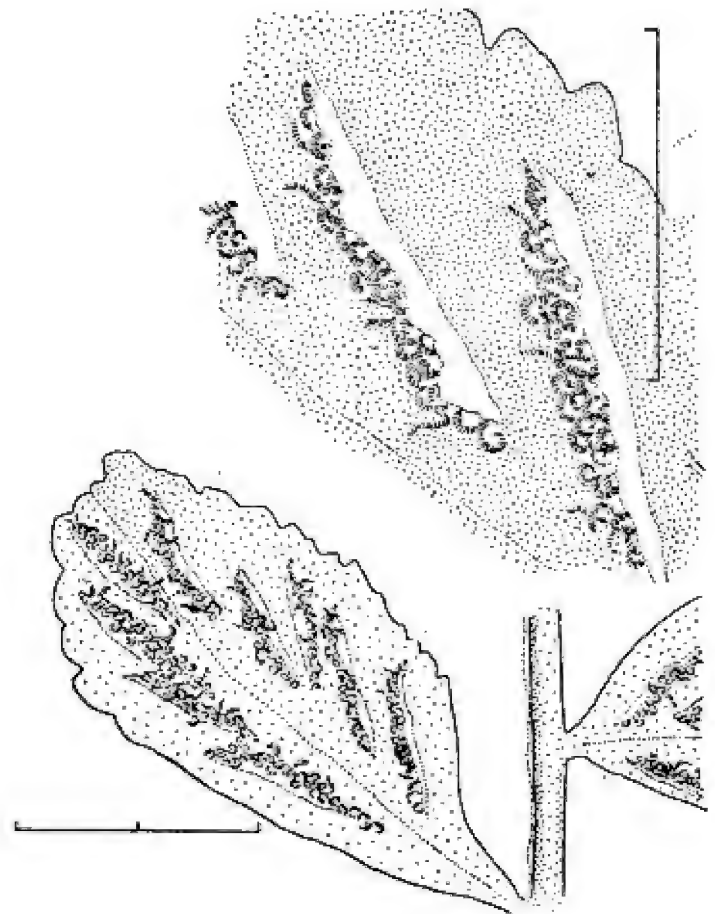
RECOMMENDATIONS: Populations of this species may still survive on sandstone exposures in southeastern Minnesota. This is probably where future inventory work would be concentrated.

SELECTED REFERENCES:

Butters, F. K. and E. C. Abbe. 1953. A floristic study of Cook County, Northeastern Minnesota. *Rhodora* 55: 21-55; 63-101; 116-154; 161-201.

Moran, R. C. 1984. The Asplenium trichomanes complex in the United States and adjacent Canada. *Am. Fern Jour.* 72(1): 5-11.

PREPARED BY: Welby Smith, Botanist,
Natural Heritage Program.



BOOK REVIEWS

The Pine Tree Book, by Russell Peterson.
Brandywine Press, NY. 1980. 144 pages. \$7.95 paper.

Here is an excellent example of a book that is appalling full of errors both in fact and typography. Why are we reviewing it here? Because it is a sampling of what to be wary of when you're looking for a tree guide.

While it is an attractive book, well illustrated by Patricia Wynne, there are as many as 24 errors in the frontpiece, a pictorial chart of conifer relationships — which is fairly typical. While other errors are simply misspelled latin names there are, more importantly, frequent occurrences of misinformation that border on irresponsibility. On one page the author asserts that the bristlecone pine does not grow in the Sierra Nevada and that lodgepole pines grow 200 feet high. (Both are false.) Peterson also claims that the eastern white pine is the largest United States pine, while a few pages later he correctly asserts that the western white pine is "larger and more robust" than the eastern one.

Make sure your selection of tree guides is written by an authoritative personage. Caveat emptor.

Wildflowers of the Northern Great Plains, by F. R. Vance, J. R. Jowsey and J. S. McLean. 1984. University of Minnesota Press. 336 pages. 2nd (revised) edition.

This latest edition is a definite must for those who rely on simple keying out of specimens or that enjoy perusing through color photographs of wildflowers. It boasts 654 color photographs, in a volume devoted to 400 of our most common wildflowers and some selected less common species. The color photographs are of top quality and permit close-up examination of the flowers as well as the plants on their native habitat.

The book covers both woodland and prairie wildflowers, arranging them in typical taxonomic order. Also included in the volume is a dichotomous key to the families. Line drawings and sketches have also been included, intended to clarify some particular aspect unique to the species or genus.

I think you'll find this a valuable addition to your library — both as a field guide and for casual enjoyment.

Jewels of the Plains: Wildflowers of the great plains grasslands and hill, by Claude Barr. University of Minnesota Press. 1983. 256 pages. \$19.95.

One of our members suggested that others be made aware of this excellent guide to prairie flora. If you're looking for an authoritative guide, this is the one! The buyer can judge this book by its cover — an excellent color photograph of one of our Anemones. While most guides to flora succumb to purely keying out specimens, this one will delight you with pleasant pictures, luring you back out to those prairie delights time and again.

MNPS DIRECTORY

Officers — 1984/1985

Welby Smith, President
Steve Eggers, Vice-President
Deb Brown, Secretary
Roger Eliason, Treasurer
Evelyn Moyle, Director-at-large
May Wright, Director-at-large

Committees

Peg Kohring, Programs
Jan Grew, Publicity
Barbara Coffin, Conservation
Neil Anderson, Newsletter
Nancy Sather, Legislation Spokesperson

Sandy Hansen, Typist

If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor.

FIELD TRIPS

TRIP TO PRAIRIE RESTORATIONS, INC.

Date: August 25

Time: 10 am at the Nursery

Description: This trip will include a tour of our plant and seed production areas at the nursery. Greenhouse propagation, field production and seed processing will be discussed. Following lunch at the nursery we will travel 5 miles east to tour our seed production farm and also a small but highly diverse wet prairie remnant. An auto tour of the Sherburne National Wildlife Refuge 4 mi. west could close out the afternoon.

Directions: Five miles south of Princeton and 0.6 miles west of Highway 169 on Sherburn County Road.

Bring: Lunch, hiking clothes and field glasses. Water and a rest room are available at the nursery.

Leaders: Ron Bowen, John Bowen, Robin Suhsen, Lois Miller

Further Information: Call Ron Bowen

MUSHROOM HUNT

Date: September 5

Time: 6:30 pm

Place: Eloise Butler Wildflower Garden

Directions: Go west of Minneapolis on Highway 12; take the Wirth Parkway exit; go north (left hand turn). Meet in the parking lot north of Eloise Butler, ie. the second right-hand turn.

Leader: Dr. Elwin Stewart, Department of Plant Pathology, University of Minnesota, St. Paul Campus.

Description: MNPS members have expressed an interest in a fall forage for mushrooms. This trip is planned in lieu of a September meeting.

A FEN IS MORE THAN A SWAMP: BLACK DOG PRESERVE

Date: September 22, 1984

Time: 9 am to noon

Description: Black Dog Preserve is a unique fen and prairie complex in the metropolitan Twin Cities area. The preserve is a joint project of the Minnesota Chapter of the Nature Conservancy and the Minnesota Department of Natural Resources

Meeting place: Coming south from Minneapolis on 35W, take the Cliff Road exit immediately after you cross the Minnesota River. Follow the road east back under the freeway and then turn left onto Cliff Road. Park on the south end of the MTC Park and Ride Lot.

Leaders: Bob Djupstrom and Peg Kohring. Bob is Supervisor for the Scientific and Natural Areas Program of the Department of Natural Resources. Peg is Assistant Director for the Minnesota Chapter.

FALL ODYSSEY: ITASCA'S PINES AND BOGS (CLEARWATER COUNTY)

Date: October 13, 1984

Time: 9 am - 3 pm

Description: Itasca, the oldest of Minnesota State Parks, is a refuge for towering 200-year old pines, soaring bald eagles and lumbering black bears. The 2,000-acre Itasca Wilderness Sanctuary, located within the park, will be the focus of this trip. A car caravan through the ten-mile wilderness drive (alive with fall colors, we hope!) will include several stops for hikes into the Sancturay.

Meeting place: In the parking lot for the Douglas Lodge, located in the park. This is a car caravan trip. Be sure to bring a bag lunch and "bog-stomping" boots.

Leaders: Ben Thoma and Paul Rundell. Ben, a biology teacher at Willmar Community College, is the park's head naturalist, with 25 years of experience at Itasca. Paul is the Regional Resource Coordinator for the DNR out of Bemidji, and a certified bog fanatic.

ATTENTION!
 HAVE YOU PAID YOUR MEMBERSHIP FEES FOR THIS YEAR? YES NO
 IF NOT, PLEASE FILL OUT THE FORM ON THE INSIDE OF THE FRONT COVER.

Minnesota Plant Press is published by
 the Minnesota Native Plant Society,
 220 Biological Sciences Center,
 1445 Gortner Avenue,
 University of Minnesota,
 St. Paul, Minnesota, 55108

CALENDER OF EVENTS

Aug 25 Trip to Prairie Restorations led by Ron Bowen, John Bowen, Robin Suhsen and Lois Miller. 10 am.

Sept 5 MNPS monthly meeting will be a mushroom walk at Eloise Butler Wildflower Garden led by Dr. Stewart 6:30 pm.

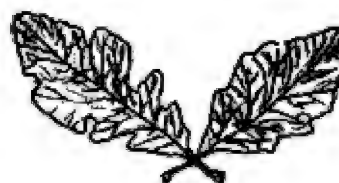
Sept 22 Nature Conservancy trip to Black Dog Preserve (Dakota County) 9 am.

Oct 3 MNPS monthly meeting: Seed Exchange by Chris Soutter and Dr. Wright.

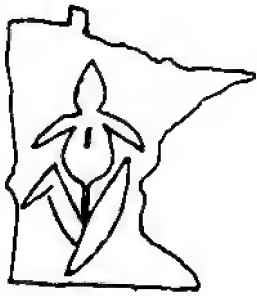
Oct 13 Nature Conservancy trip to Itasca Wilderness Sanctuary. 9 am.

Nov 7 MNPS monthly meeting: Fern Workshop by Harriet Mason

Dec. 5 MNPS monthly meeting: Minnesota Mosses by Jan Janssens.



Minnesota Plant Press is published by the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, Minnesota, 55108. Welby Smith, President; Steve Eggers, Vice-President; Deb Brown, Secretary; Roger Eliason, Treasurer; Evelyn Moyle and May Wright, Directors-at-large; Neil Anderson, Editor. Minnesota Plant Press may be obtained through membership in the society: Single — \$8.00, Family — \$10.00, Student — \$6.00.



MINNESOTA PLANT PRESS

VOLUME 3 NUMBER 4 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY WINTER 1984

BOOT LAKE SCIENTIFIC AND NATURAL AREA

by Bob Djupstrom*

The Boot Lake Scientific and Natural Area (SNA) is a delightful place to visit. It is only a 30 minute drive north of the Twin Cities. Many surprises are to be found here, including the Little Bluestem, a prairie grass that grows with White Pine.

Boot Lake SNA is a 400 acre mixture of oak forest with a remnant White Pine stand, a marsh, a 90+ acre bog lake with floating mat, and a Jack Pine Bog. The tract contains an extensive stand of Water Willow (Decondon verticillatus) — a more eastern plant species on the lakeshore, stands of Wild Rice, nesting Canadian geese and a Tamarack bog. Huckleberry (Gaylussacia brachycera), also an eastern species, is found on the Oak Forest-bog border along with Mountain Holly (Nemopanthus mucronata). The holly is especially evident in the winter months when the bright red berries provide a contrast with the snow cover. Other unusual plant species include Long-haired Hawkweed (Hieracium longipilum), found in the sand prairie habitat, on the eastern side. The northern affinity is especially evident in this area containing Red Maples and White Pine. Pipsissewa and Wintergreen grow here, along with other more northern species. The site also has a small Jack Pine bog with Cranberry growing in it.

The Ramshead Ladyslipper (Cypripedium arietinum) has been found here in the past. Rare animal species also found here include the Blandings Turtle and nesting loons. The area is also a good place to see Bald Eagles in the fall, searching for crippled waterfowl.

Winter also affords an opportunity to see other inhabitants. A field trip on skis or snowshoes may allow you to see the Wild Turkey or deer commonly found here.

Directions are as follows: From St. Paul, take I-35E north to County Road 26 in Wyoming. Go west on Co. Road 26 to Co. Road 22. Go south on 22 to Co. Rd. 17. Take County Rd. 17 east to the entrance sign for the Carlos Avery Wildlife Management Area (where the blacktop turns south). Turn left at this intersection onto sand road (there is no sign) and proceed north to the small parking lot (there is a sign) for Carlos Avery users, located on the right-hand side of the road (about 3/4 miles in). Maps are also available from the SNA Program. To obtain one, call 297-3288 or 297-2357.

*Editors note: Bob Djupstrom will be our featured speaker at the MNPS monthly meeting on January 9.

JANUARY MEETING DATE CHANGE

Since the first Wednesday in January falls on the second (the day after New Year's Day), the monthly meeting of the Minnesota Native Plant Society has been moved to the following week, on **Wednesday, January 9, 1985. PLEASE NOTE THIS ON YOUR CALENDARS.**

Minnesota Native Plant Society Membership Registration

Mail to: MNPS, 220 Biological Sciences Center, Univ. of Minnesota, St. Paul, MN 55108

_____ New Member

_____ Renewal

Membership Categories:

\$8.00	_____ Individual	\$6.00	_____ Senior (over 62 or retired)
\$10.00	_____ Family (Two or more related individuals at same address)	\$15.00	_____ Institution
\$6.00	_____ Student (Full-time)	\$25.00	_____ Donor

Name _____ Address _____

City _____ State _____ Zip _____ Phone _____

U. OF M. CAMPUS ADDRESS: _____

OCTOBER SEED EXCHANGE

The seeds of forty native species were traded at this year's seed exchange held October 1. Thank-you to all those who contributed and packaged seeds.

Thanks are also due to Horace Chamberlain whose donation made possible the printing of the MNPS seed exchange envelopes.

And of course, special thanks to Dr. May Wright who shared her knowledge of germinating native plants.

The seed exchange is an annual event, and Dr. Wright and I are interested in your suggestions for next year's exchange. Please call me or pass on comments to board members.

Chris Soutter - 228-0306

If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: Neil Anderson, P.O. Box 80052, St. Paul, MN 55108.

COMO PARK CONSERVATORY TOUR

On Saturday, Feb. 2, at 11 am, there will be a tour of the Como Park Conservatory Greenhouses, focusing on the economic plants. There is a 50 admission charge due to the Azalea show which will be in progress at that time. This tour is for MNPS members. Come and enjoy a breath of spring.

TREASURER'S REPORT

SEPT. 10 - DEC. 10, 1984

<u>Receipts</u>	\$414
(membership dues)	
<u>Expenses</u>	\$80
(printing, mailing, misc.)	
<u>Balance on Hand</u>	\$1391
<u>Reconciliation</u>	
Draft Account	\$756
Savings	\$615
Petty Cash	\$20
	<u>\$1391</u>

A GUIDE TO MINNESOTA PRAIRIES

The Minnesota Natural Heritage Program.
71 pages. \$6.18 (postage and tax included).

A well-presented introduction to the ecology, status and location of prairies in Minnesota. Includes sections on prairie classification, and assessment of the ownership and protection status of Minnesota prairie, and a directory to 40 select prairie preserves across the State. The directory section includes detailed site maps for each preserve and a brief discussion of their location, size and natural features. In addition, original drawings, black and white photographs and maps are used to illustrate the text.

Order copies from:

MN Department of Natural Resources
Outdoor Recreation Information
444 Lafayette Road
Space Center Building - 2nd Floor
St. Paul, MN 55101

NEW EAST ASIAN GRASS ESTABLISHED AT FORT SNELLING

An East Asian grass sparingly grown as an ornamental in this region, Miscanthus sacchariflorus, has escaped cultivation and has become established on the southeast shore of Snelling Lake, Fort Snelling State Park. Its tall, reddish to yellow-brown stems and nearly white plumose inflorescences are conspicuous from the park drive and are especially showy in late fall and winter. The plants occur in a single, continuous stand and, despite the fact that they bear abundant seed, have probably expanded by clonal propagation of their thick horizontal rhizomes. The size of the colony, about 15 to 20 meters across, indicates that it has been present at this site for a number of years.

Although this record is of only anecdotal interest, adventive or naturalized populations of M. sacchariflorus have not been previously reported in Hennepin County and the Twin Cities area, and only three such populations have been recorded in Minnesota, these from Houston, Stearns, and Le Sueur Counties. One additional collection in the University of Minnesota Herbarium was taken from a garden near Mankato. A voucher from Snelling Lake was collected with permission and has been deposited in the University Herbarium.

—Steve and Charles Argue

NEW PRAIRIE DISCOVERED

A new prairie-fen complex has been discovered in southwestern Minnesota near Petersburg by Jerry Kinney, a Minnesota DNR Conservation Officer and Bob Moats, a conservation officer with the Iowa Conservation Commission. It contains a rolling hillside prairie along the Des Moines River. Not only is the prairie in excellent condition, but it has the rare plant prairie bush clover (Hesperis leptostachya) as well as a calcareous fen.

SHOWY ORCHIS IN OTTERTAIL COUNTY

The Showy Orchis (Orchis spectabilis L.), now rare throughout Minnesota, has been reported from Houston and Fillmore to Blue Earth, Meeker, and Chisago counties, and in Pope county (Morley, 1966, Spring Flora of Minnesota). It has also been collected in southern Douglas county (University of Minnesota Herbarium data). In May of 1984 we found several specimens growing in a moist depression within a basswood, oak, elm community in Ottertail county near Clitherall Lake. This site represents the northernmost record of this species in Minnesota.

Steve and Charles Argue

SPRING FLORA REPRINTED

Spring Flora of Minnesota (including common cultivated plants) by Thomas Morley. The University of Minnesota Press. 1966, reprinted in 1969 and 1984. Paperback available at Books Underground, University of Minnesota, Student Center, St. Paul, MN 55108.
(Price approximately \$7.00)

This book of keys, species and genera descriptions is an excellent companion to illustrated guides, forcing attention to details and assuring one of accurate identification of spring flora. It is also used in taxonomy courses offered through the Botany Department at the University of Minnesota. A cutoff of June 7th has been used to define those plants flowering in spring. Spring Flora covers 662 native and naturalized plants along with 194 commonly cultivated ones.

SPECIES STATUS SHEET

CRISTATELLA JAMESII T. & G

Cristatella Jamesii T. & G.

FAMILY: Capparidaceae

COMMON NAME: Cristatella

STATE STATUS: Endangered

FEDERAL STATUS: None

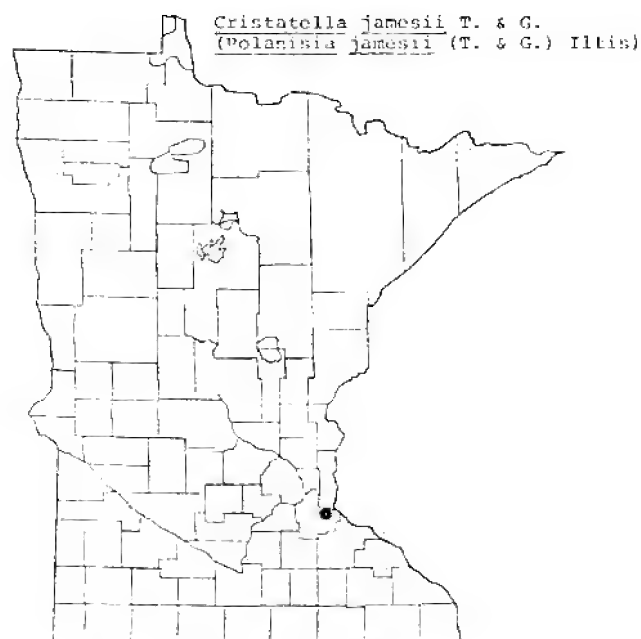
BASIS FOR MINNESOTA STATUS: This species was discovered in Minnesota in 1978 in a sand dune complex near Hastings (Dakota County). Inventories of comparable sand dune habitats in southeastern Minnesota have failed to locate any additional populations. It is possible that this singular occurrence may represent the extent of this species in Minnesota.

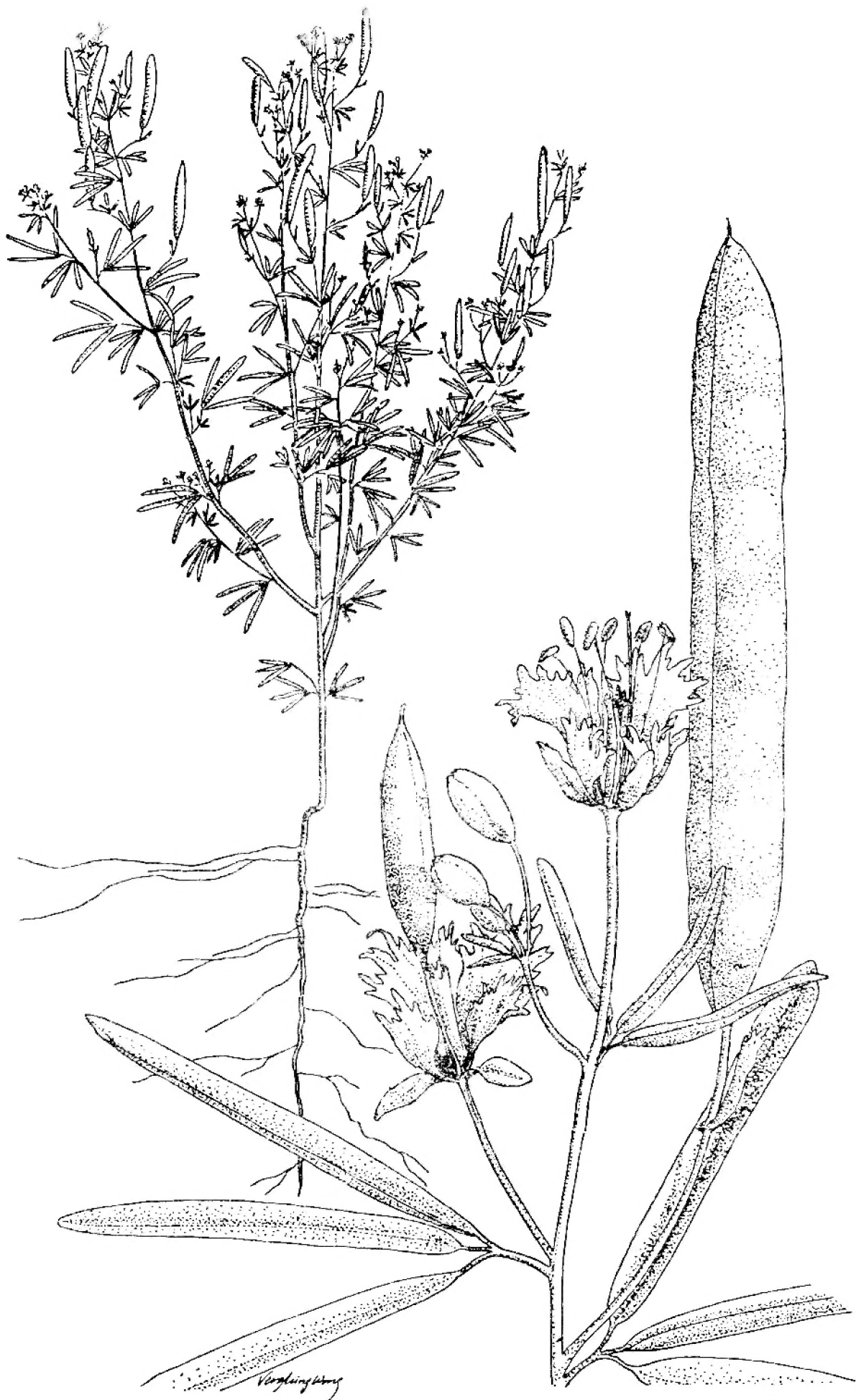
The Minnesota population is part of an isolated midwestern range that is widely disjunct from the main range of the species in the lower Great Plains. The distribution of C. jamesii within its midwestern range is quite local, and fewer than a dozen populations have been reported. It is listed as endangered in Iowa, threatened in Illinois, and is apparently absent from sand deposits in the Mississippi and Illinois River Valleys. These habitats are limited in extent, and are often heavily exploited for their commercial, industrial or residential potential. For example, the major portion of the habitat occupied by the Minnesota population has been degraded by off-road-vehicles, sand quarrying, pine plantations and most recently, a housing development. A smaller portion of this population occurs on adjacent public land where it receives some protection. It is uncertain, however, if the succession is also a potential threat, because C. jamesii apparently requires unstabilized dunes and blowouts.

PREFERRED HABITAT IN MINNESOTA: The Minnesota population occurs in a sand dune complex that is situated in a 2 mile long coulee. There is associated sand prairie and sand savanna habitat that may also serve as suitable habitat. The plants appear to require open sand such as in blowouts where there is little, if any competing vegetation. It occurs in association with the closely related, but more common, Polanisia graveolens (clammyweed), as well as

typical sand dune vegetation such as Calamovilfa longifolia (sandreed), Petalostemum villosum (silky prairie-clover) and Liatris punctata (dotted blazing-star).

SELECTED REFERENCES: Iltis, H. H. 1958. Studies in the Capparidaceae IV. Polanisia Raf. Brittonia 10: 33-58.





GULF CONSERVATION AWARDS PROGRAM

The Gulf Oil Corporation, a subsidiary of Chevron Corporation, is now accepting nominations for its 1985 Conservation Awards program. This nationwide competition honors individuals and non-profit organizations who distinguish themselves through their conservation work.

The program seeks to honor citizens and organizations of the United States which have had little or no national recognition and to encourage younger conservationists as well as veterans with long records of noteworthy achievements. The program is also intended to enhance public awareness of sound conservation principles and practices.

Gulf presents 20 Conservation Awards each year: 10 to professional conservationists employed by non-profit organizations and 10 to private citizens for their personal contributions to the preservation of renewable natural resources. Awards are also made to several local, regional and national non-profit organizations.

Past honorees include organizations such as the National Audubon Society, the National Wildlife Foundation and the Izaak Walton League of America. Individuals singled out are less well-known, but their impact on conservation matters has been profound: people like 1984 winners Tom J. Cade, of Ithaca, New York, Professor of Ornithology at Cornell University, and the "spiritual father" of the peregrine falcon in North America; Rex Moses, of Athens, Tennessee, retired trough and dairy farmer, and leader of soil conservation efforts for 40 years; and Betsy Sluder of Armonk, New York, whose work has helped to protect and preserve the Mianus River and its wetlands.

Each recipient is awarded \$400 and an engraved bronze plaque at a banquet to be held next Spring in Washington, D.C.

Nominations should include a letter of recommendation which provides pertinent information and documentation on the nominee's accomplishments and the nominee's address and telephone number. At least two supplementary letters of endorsement also should be submitted for each nomination. Selection of awardees is made by an independent committee of distinguished conservationists.

Nominations for 1985 Gulf Oil Awards should be submitted by November 30, 1984, to Gulf Oil Conservation Awards, P.O. Box 1166, Pittsburgh, PA 15230.

ANNOUNCING A SPRING HORTICULTURE TOUR

The University of Minnesota is sponsoring a tour of the Gardens of the Delaware Valley on May 4-11, 1985.

MNPS members are invited to participate in exploring the "cradle of American Horticulture." The emphasis of the trip will be on garden styles from a historic and aesthetic point of view.

The trip includes several days in Wilmington, Delaware, to visit the Hagley Museum—a garden and mansion located on the scenic Brandywine River; the mansion of Alfred J. DuPont with its unsurpassed garden in the French formal style; and Longwood Gardens, America's finest display garden. In addition, the tour includes several days in Philadelphia to visit the Japanese Garden, the Pennsylvania Horticultural Society's Colonial Garden, and more. This is also a unique opportunity to be part of specially arranged tours of private gardens in Philadelphia not open to the public.

Leading the tour is Roberta Sladky, director of the College of Biological Science's greenhouse plant collection. While completing her master's degree, she lived and worked in the Delaware Valley and interned at several of the gardens to be visited.

\$775 (approximate) includes all lodging, land transportation in Delaware and Pennsylvania, three dinners, two lunches, two receptions, on-site lectures, and one pre-trip orientation. Participants will check in and meet at the hotel in Wilmington on May 4.

Air transportation is extra and may be arranged directly with Eden Travel, telephone 944-1676, toll free in Minnesota 1-800-862-6077, out of Minnesota 1-800-328-6152.

For further information or reservations call 376-7500 or write to:
Study and Travel Adventure
University of Minnesota
180 Westbrook Hall
77 Pleasant St. S.E.
Minneapolis, MN 55455

WILDFLOWER SEEDLING EXCHANGE

In conjunction with the monthly MNPS meeting on May 1, 1985, there will be a wildflower seedling and plant exchange. Be sure to plant those seeds from the seed exchange and bring in extra seedlings to share. Watch for details in the spring newsletter.

POSTION ANNOUNCEMENTS

The Minnesota Chapter of the Nature Conservancy has announced the positions available in 1985 under its Small Grants program, Internship Program and the Peregrine Falcon Introduction project.

The Small Grants Program is designed to encourage scientific reserach on lands protected by the Nature Conservancy (TNC). The goal of the program is to enable TNC to understand and manage its lands better.

Ten positions are available in 1985 under the Internship Program. These include: Preserve Design/Entomologist Intern, Rare Plant Intern, Land Use History/Interpreter Intern, Natural Areas Assistant, and Fall or Spring prescribed Burn Crews. The deadline for applications is Feb. 15, 1985.

If you are interested in applying, send a resume and letter of application to: Margaret K. Kohring, Director of Land Stewardship, Minnesota Field Office, The Nature Conservancy, 328 East Hennepin Avenue, Minneapolis, MN 55414.

1985 CALENDAR OF NATURE'S EVENTS NOW AVAILABLE

The 1985 Calendar of Nature's events is now available from River Bend Nature Center in Faribault, Minnesota. Each day highlights special events in Nature to watch for which are actual field notes taken by Orwin A. Rustad, Naturalist. The calendar is illustrated by Dan Milburt, Wildlife Artist, in enchanting pen and ink drawings of animal and landscapes. This year, some useful notes have been added such as when to plant and harvest garden flowers and vegetables, when to prune trees and shrubs without damage, best times to put up bird houses and other helpful tips, plus each monthly drawing includes a narrative paragraph interpreting the wildlife features. For your home and for friends and relatives, this is \$4.95 enjoyably spent. All proceeds will be used for educational programs at River Bend Natue Center. To order, mail a check for \$4.95 plus \$1.00 for postage to River Bend Nature Center, Box 265, Faribault, MN 55021

THANK YOU

Special thanks are extended to May Wright and Chris Soutter for planning, organizing and leading the seed exchange in October. It was a great success. Also, thanks to everyone who collected seeds to be exchanges.

Harriet Mason is also to be commended for the superb job she did in acquainting all of us with the ferns and their allies at the November meeting. May Wright added her special knowledge of the ferns and we were again treated to some excellent photography from the Nature Camera Club Exhibition.

Jan Jannsen introduced us to the fascinating realm of Bryophytes - from the patterns of their cells to their historical patterns in bogs and fens. Thank you for a most interesting talk at our December meeting.

ALASKA PUBLICATIONS AVAILABLE

The following two publications on research done in Glacier Bay, Alaska are now available:

Proceedings of the First Glacier Bay Science Symposium, Glacier Bay National Park and Preserve, September 23-26, 1983. (the Symposium was titled "A Century after Muir - the Scientific Adventure"). Wood, James D., Jr., Maria Gladzissewski, Ian A. Worly, and Gary Vequist, editors, 1984. by the U.S. Department of the Interior, National Park Service, Science Publications Office, Atlanta, Georgia. 95 pp.

Bibliography of Research and Exploration of Glacier Bay, Alaska, 1798 to 1984 by Doris Howe in 1984 by U.S Department of the Interior, National Park Service, Science Publications Office, Atlanta, Georgia. 33 pp.

Copies of these two publications can be obtained by writing:

Glacier Bay National Park and Preserve
Bartlett Cove
Gustavus, Alaska 99826

Minnesota Plant Press is published by
the Minnesota Native Plant Society,
220 Biological Sciences Center,
1445 Gortner Avenue,
University of Minnesota,
St. Paul, Minnesota, 55108

CALENDAR OF EVENTS

- Jan. 2 **NOTE:** MNPS monthly meeting moved to next week, on January 9.
- Jan. 9 MNPS monthly meeting: "Minnesota: Scientific and Natural Areas Program", presented by Bob Djupstrom
- Feb. 2 Tour of the Como Park Conservatory Greenhouses focusing on the economically important plants housed there. 50¢ admission charge due to the Azalea show
- Feb. 6 MNPS monthly meeting: Peg Kohring will speak on "Costa Rican National Parks."
- March 6 MNPS monthly meeting: Welby Smith will be speaking on "Minnesota Ginseng."
- March 15 next Minnesota Plant Press deadline
- May 1 MNPS monthly meeting will also include a wildflower seedling exchange
- MNPS monthly meetings are at 7:30 pm in the Palmer Classroom Building, Room 10, University of Minnesota, St Paul Campus

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Minnesota Plant Press is published by the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, Minnesota, 55108. Welby Smith, President; Steve Eggers, Vice-President; Deb Brown, Secretary; Roger Eliason, Treasurer; Evelyn Moyle and May Wright, Directors-at-large; Neil Anderson, Editor. Minnesota Plant Press may be obtained through membership in the society: Single — \$8.00, Family — \$10.00, Student — \$6.00.